* * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:24:18 ON 10 SEP 2004

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 12:24:27 ON 10 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 8 SEP 2004 HIGHEST RN 741635-85-8
DICTIONARY FILE UPDATES: 8 SEP 2004 HIGHEST RN 741635-85-8

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

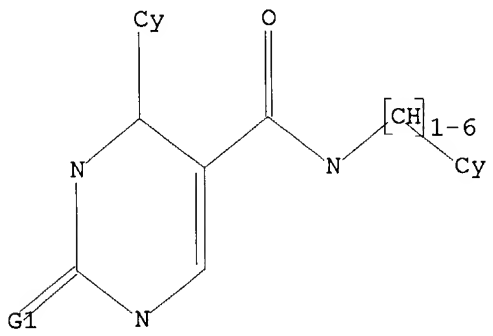
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
Uploading C:\Program Files\Stnexp\Queries\025589.str

L1 STRUCTURE UPLOADED

=> D L1
L1 HAS NO ANSWERS
L1 STR



G1 O,S

Structure attributes must be viewed using STN Express query preparation.

=> S L1 SSS FULL
FULL SEARCH INITIATED 12:24:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 10514 TO ITERATE

100.0% PROCESSED 10514 ITERATIONS 237 ANSWERS
SEARCH TIME: 00.00.01

L2 237 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	155.42	155.63

FILE 'CAPLUS' ENTERED AT 12:24:53 ON 10 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 10 Sep 2004 VOL 141 ISS 12
FILE LAST UPDATED: 9 Sep 2004 (20040909/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12
L3 14 L2

=> d l3 1-14 ibib abs hitstr

L3 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:162444 CAPLUS
DOCUMENT NUMBER: 140:212060
TITLE: DNA encoding a human melanin concentrating hormone receptor (MCH1) and uses thereof and preparation of 4-phenylpiperidine derivatives as human MCH1 receptor antagonists
INVENTOR(S): Salon, John A.; Laz, Thomas M.; Nagorny, Raisa; Wilson, Amy E.; Craig, Douglas A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 180 pp., Cont.-in-part of U.S. Ser. No. 899,732.
CODEN: USXXCO
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004038855	A1	20040226	US 2003-341751	20030114
WO 2000039279	A2	20000706	WO 1999-US31169	19991230
WO 2000039279	A3	20001102		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

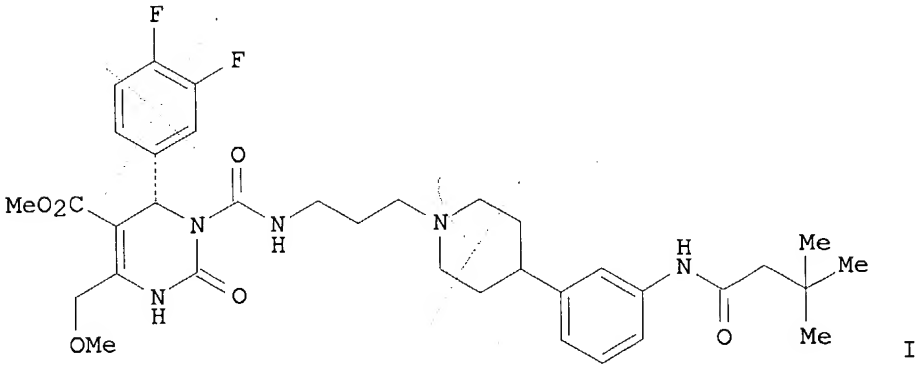
US 2003082623	A1	20030501	US 2001-899732	20010705
WO 2004064774	A2	20040805	WO 2004-US724	20040114

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.:

WO 1999-US31169	A2	19991230
US 2000-610635	B2	20000705
US 2001-899732	A2	20010705
US 1998-224426	A2	19981231
US 2003-341751	A	20030114

GI



I

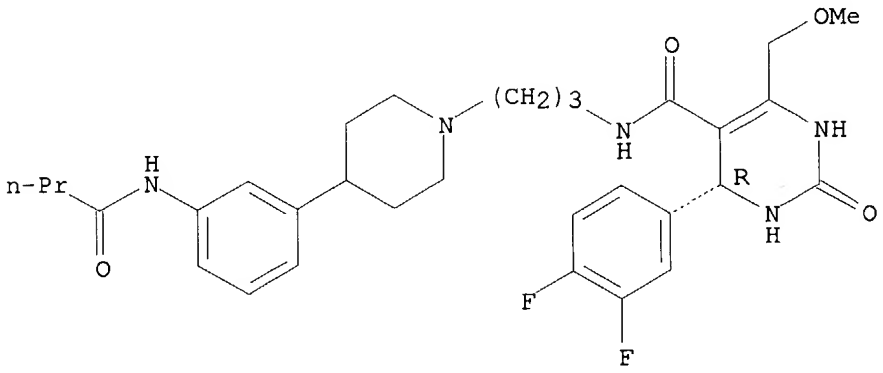
AB This invention provides an isolated nucleic acid encoding a human MCH1 receptor, a purified human MCH1 receptor, vectors comprising isolated nucleic acid encoding a human MCH1 receptor, cells comprising such vectors, antibodies directed to a human MCH1 receptor, nucleic acid probes useful for detecting nucleic acid encoding human MCH1 receptors, antisense oligonucleotides complementary to unique sequences of nucleic acid encoding human MCH1 receptors, transgenic, nonhuman animals which express DNA encoding a normal or mutant human MCH1 receptor, methods of isolating a human MCH1 receptor, methods of treating an abnormality that is linked

to the activity of a human MCH1 receptor, as well as methods of determining binding of compds. to mammalian MCH1 receptors. This invention further provides a method of treating a subject suffering from urinary incontinence which comprises administering to the subject an amount of an MCH1 antagonist effective to treat the subject's urinary incontinence or overactive bladder. Various 4-phenylpiperidine derivs., e.g (I), were synthesized and tested as human MCH1 receptor antagonists.

IT **387826-04-2P**, (4R)-N-[3-[4-[3-(Butyrylamino)phenyl]-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-6-(methoxymethyl)-2-oxo-1,2,3,4-tetrahydro-5-pyrimidinecarboxamide **387826-05-3P**, (4R)-4-(3,4-Difluorophenyl)-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-(propionylamino)phenyl]-1-piperidinyl]propyl]-1,2,3,4-tetrahydro-5-pyrimidinecarboxamide **387826-06-4P**, (4R)-4-(3,4-Difluorophenyl)-6-(methoxymethyl)-N-[3-[4-[3-[(3-methylbutanoyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-1,2,3,4-tetrahydro-5-pyrimidinecarboxamide **387826-07-5P 387826-08-6P**, (4R)-4-(3,4-Difluorophenyl)-N-[3-[4-[3-[(3,3-dimethylbutanoyl)amino]phenyl]-1-piperidinyl]propyl]-6-(methoxymethyl)-2-oxo-1,2,3,4-tetrahydro-5-pyrimidinecarboxamide **387826-09-7P**, (4R)-4-(3,4-Difluorophenyl)-N-[3-[4-[3-(isobutyrylamino)phenyl]-1-piperidinyl]propyl]-6-(methoxymethyl)-2-oxo-1,2,3,4-tetrahydro-5-pyrimidinecarboxamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(DNA encoding human melanin concentrating hormone receptor (MCH1) and uses thereof and preparation of phenylpiperidine derivs. as human MCH1 antagonists)

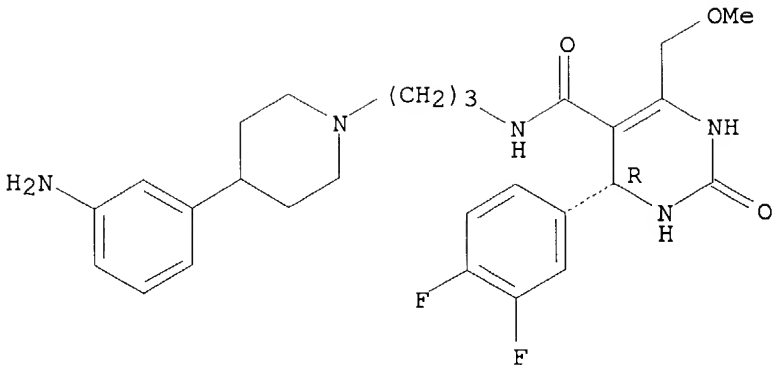
RN 387826-04-2 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



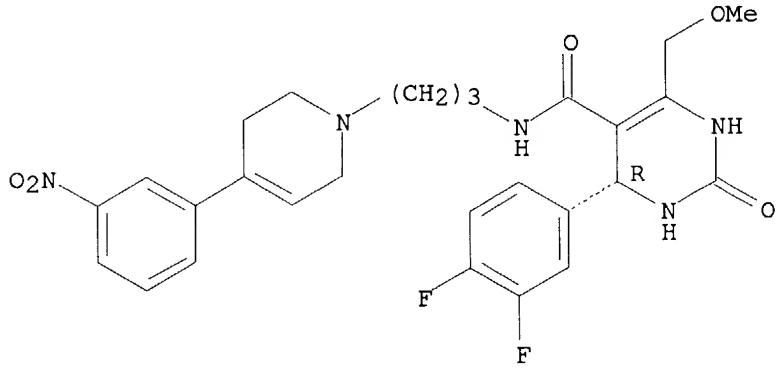
RN 387826-05-3 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 663622-91-1 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-N-[3-[3,6-dihydro-4-(3-nitrophenyl)-1(2H)-pyridinyl]propyl]-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:334519 CAPLUS
DOCUMENT NUMBER: 138:298124
TITLE: Human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof
INVENTOR(S): Borowsky, Beth; Blackburn, Thomas P.; Ogozalek, Kristine
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 193 pp., Cont.-in-part of U.S. Ser. No. 610,635.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003082623	A1	20030501	US 2001-899732	20010705
US 6221613	B1	20010424	US 1998-224426	19981231
WO 2000039279	A2	20000706	WO 1999-US31169	19991230

WO 2000039279 A3 20001102
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2003077701 A1 20030424 US 2001-29314 20011220
US 2004038855 A1 20040226 US 2003-341751 20030114
PRIORITY APPLN. INFO.: US 1998-224426 A2 19981231
WO 1999-US31169 A2 19991230
US 2000-610635 A2 20000705
US 2001-899732 A1 20010705

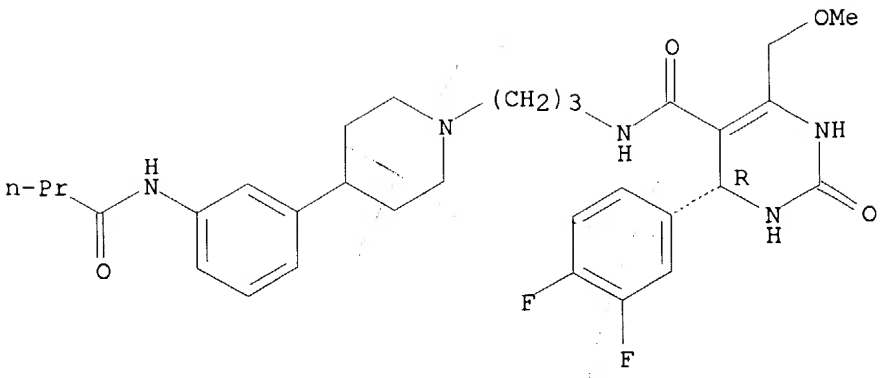
AB This invention provides an isolated nucleic acid encoding a human MCH1 receptor, a purified human MCH1 receptor, vectors comprising isolated nucleic acid encoding a human MCH1 receptor, cells comprising such vectors, antibodies directed to a human MCH1 receptor, nucleic acid probes useful for detecting nucleic acid encoding human MCH1 receptors, antisense oligonucleotides complementary to unique sequences of nucleic acid encoding human MCH1 receptors, transgenic, nonhuman animals which express DNA encoding a normal or mutant human MCH1 receptor, methods of isolating a human MCH1 receptor, methods of treating an abnormality that is linked to the activity of a human MCH1 receptor, as well as methods of determining binding of compds. to mammalian MCH1 receptors. This invention provides a method of modifying the feeding behavior of a subject which comprises administering to the subject an amount of an MCH1 antagonist effective to decrease the body mass of the subject and/or decrease the consumption of food by the subject. This invention further provides a method of treating a subject suffering from depression and/or anxiety which comprises administering to the subject an amount of an MCH1 antagonist effective to treat the subject's depression and/or anxiety.

IT **387826-04-2P 387826-05-3P 387826-06-4P**
387826-07-5P 387826-08-6P 387826-09-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof)

RN 387826-04-2 CAPLUS

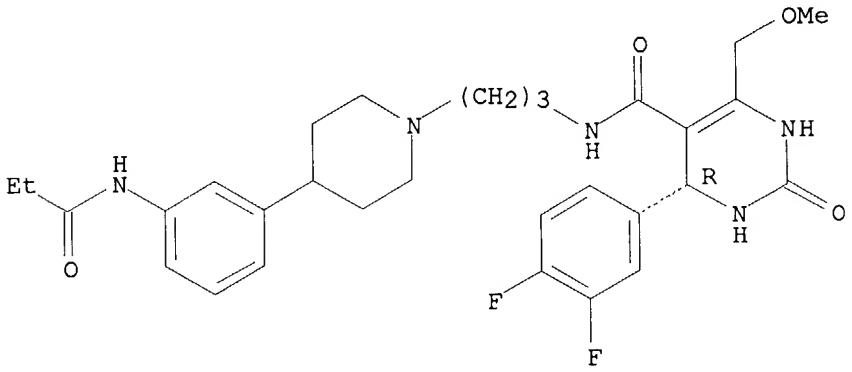
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



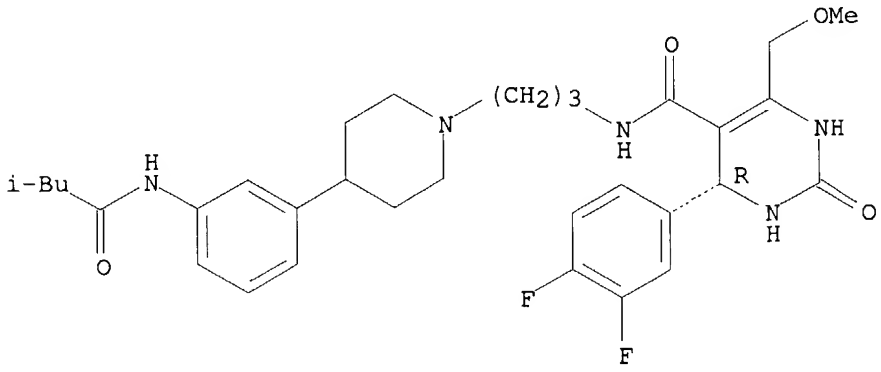
RN 387826-05-3 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

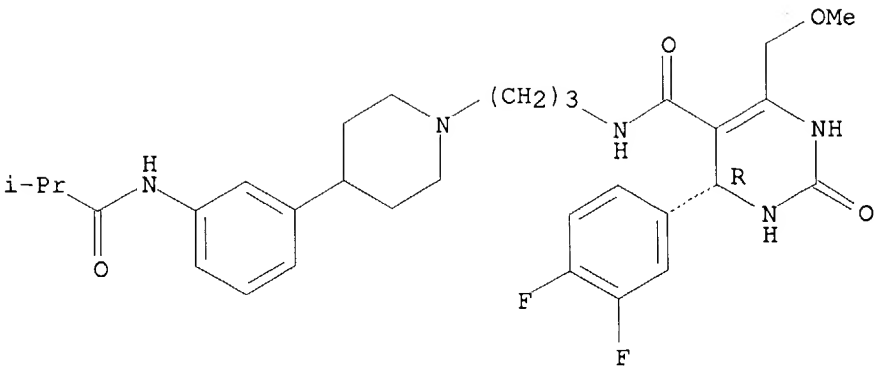


RN 387826-06-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(3-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

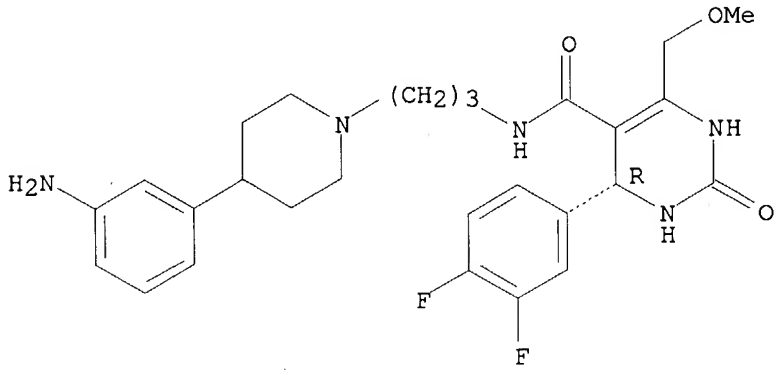


RN 387826-07-5 CAPLUS



IT **387827-17-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof)
RN 387827-17-0 CAPLUS
CN 5-Pyrimidinecarboxamide, N-[3-[4-(3-aminophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (4R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2003:282121 CAPLUS
DOCUMENT NUMBER: 138:287697
TITLE: Preparation and use of arylpyrimidines as selective melanin concentrating hormone-1 (mch-1) receptor antagonists
INVENTOR(S): Marzabadi, Mohammad R.; Wetzel, John; Deleon, John E.; Lagu, Bharat; Gluchowski, Charles; Noble, Stewart; Nagarathnam, Dhanapalan
PATENT ASSIGNEE(S): Synaptic Phamaceutical Corp., USA
SOURCE: U.S. Pat. Appl. Publ., 101 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2003069261	A1	20030410	US 2001-899635		20010705
US 6720324	B2	20040413			
PRIORITY APPLN. INFO.:			US 2000-216218P	P	20000705
OTHER SOURCE(S):	MARPAT 138:287697				
GI					

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

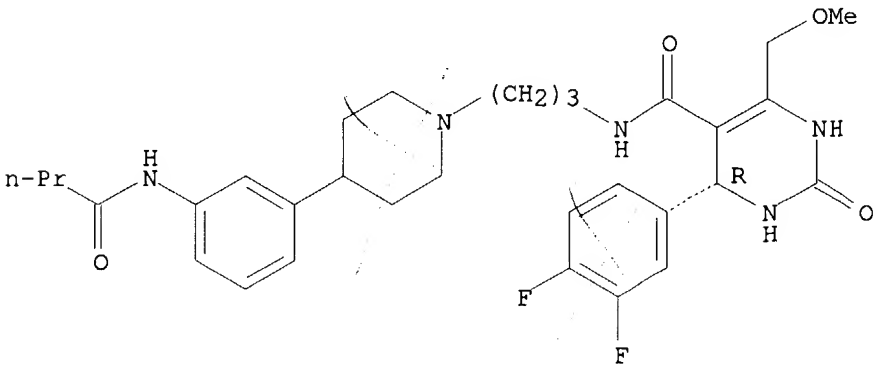
AB Title compds. I-IV [A = (un)substituted Ph, pyridyl, benzothiazolyl, benzoxazolyl, etc.; R1 = H, NO2, CN, (fluoro)alkyl, (cyclo)alkenyl, alkynyl, (fluoro)cycloalkyl, amino, alkoxy, acyl, carboxy, carboxamido; R2 = H, (hydroxy)alkyl, alkoxyalkyl, fluoroalkyl, cycloalkenyl, etc.; R3 = H, (fluoro)alkyl, (cyclo)alkenyl, alkynyl, (fluoro)cycloalkyl; R4 = alkyl-piperidinyl, alkyl-tetrahydropyridinyl, etc. in which the heterocycle is substituted with (hetero)aryl, thioacyl, amido, etc.; X = O, S, NR3; n = 0 - 5] were prepared For instance, (+)-V was prepared by reaction of 5-methoxycarbonyl-4-methoxymethyl-1,2,3,6-tetrahydro-2-oxo-6-(3,4-difluorophenyl)-1-[(4-nitrophenyloxy)carbonyl]pyrimidine (preparation given) and the corresponding propylamine sidechain with base (e.g., iPr2NEt) in CH2Cl2. (+)-V had antagonist potency (Kb) = 0.3 nM and Ki = 0.08 nM for the melanin-concentrating hormone receptor (mch) and Ki > 50,000 nM for two neuropeptide Y receptors and Ki > 50,000 nM three galanin receptors. I-IV are useful in the treatment of, e.g., bulimia nervosa and obesity.

IT **387826-04-2P 387826-05-3P 387826-06-4P**
387826-07-5P 387826-08-6P 387826-09-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug; preparation and use of arylpyrimidines as selective melanin concentrating
hormone-1 (mch-1) receptor antagonists)

RN 387826-04-2 CAPLUS

CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

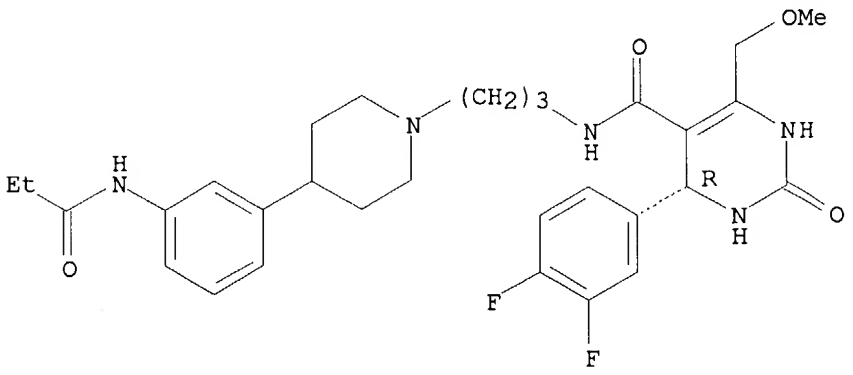
Absolute stereochemistry.



RN 387826-05-3 CAPLUS

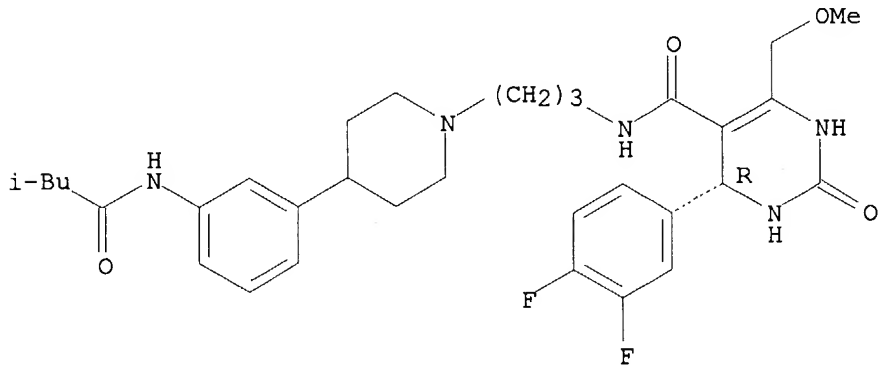
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 387826-06-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(3-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



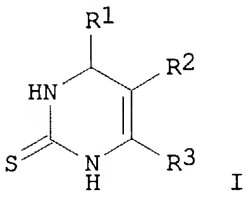
RN 387826-07-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(2-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L3 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:658092 CAPLUS
DOCUMENT NUMBER: 137:185508
TITLE: Preparation of 2-thioxo-1,2,3,4-tetrahydropyrimidines as neutral sphingomyelinase inhibitors
INVENTOR(S): Delaet, Nancy; Williams, John; Wilson, Dean; Ohmawari, Nagashige; Nakai, Hisao
PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 198 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002066443	A2	20020829	WO 2002-JP1471	20020220
WO 2002066443	A3	20030306		
W: JP				
PRIORITY APPLN. INFO.:			US 2001-269841P P	20010221

OTHER SOURCE(S): MARPAT 137:185508
GI

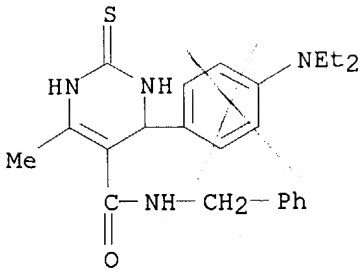


I

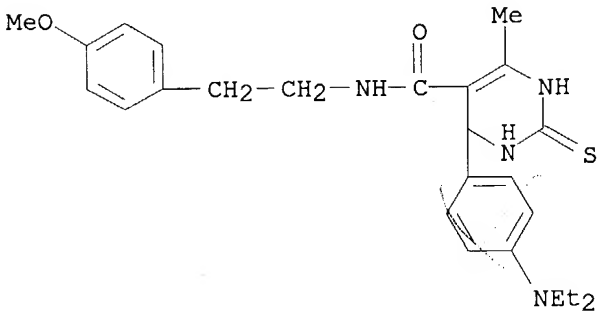
AB The title compds. [I; R1 = (un)substituted Ph, pyridyl, imidazolyl, alkyl, etc.; R2 = COR12, CO2R13, CONR14R15, H, etc. (R12 = alkyl; R13 = alkyl, alkenyl, alkoxyalkyl, etc.; R14 = H, alkyl; R15 = alkyl, phenylalkyl, naphthylalkyl); R3 = alkyl, alkoxyalkyl, CO2R28, etc. (R28 = alkyl); with provisos], useful as neutral sphingomyelinase inhibitors and therefore are useful for the treatment and/or prevention of arteriosclerosis, cerebral ischemia, cardiac ischemia, lung injury, renal injury, GVHD (graft vs. host diseases), transplant rejection, HIV, etc., were prepared and formulated. Thus, cyclization of 1,3-diphenyl-2-(thiophen-2-ylmethylene)propane-1,3-dione (preparation given) with S-(4-methoxybenzyl)thiourea.HCl in pyridine afforded I [R1 = 2-thienyl; R2 = COPh; R3 = Ph]. Biol. data for 27 compds. I was given.

IT **452065-06-4P 452065-09-7P 452065-11-1P**
452065-13-3P 452065-16-6P 452065-17-7P
452066-43-2P 452066-44-3P 452066-45-4P
452066-46-5P 452066-49-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 2-thioxo-1,2,3,4-tetrahydropyrimidines as neutral sphingomyelinase inhibitors)

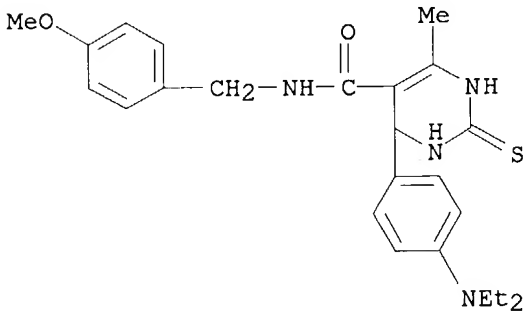
RN 452065-06-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-[4-(diethylamino)phenyl]-1,2,3,4-tetrahydro-6-methyl-N-(phenylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



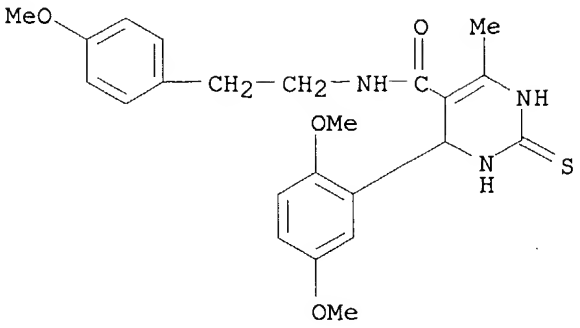
RN 452065-09-7 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-[4-(diethylamino)phenyl]-1,2,3,4-tetrahydro-N-[2-(4-methoxyphenyl)ethyl]-6-methyl-2-thioxo- (9CI) (CA INDEX NAME)



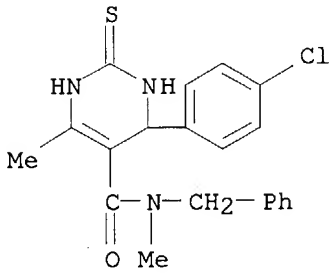
RN 452065-11-1 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-[4-(diethylamino)phenyl]-1,2,3,4-tetrahydro-N-[(4-methoxyphenyl)methyl]-6-methyl-2-thioxo- (9CI) (CA INDEX NAME)



RN 452065-13-3 CAPLUS
CN 5-Pyrimidinecarboxamide, N-(1,3-benzodioxol-5-ylmethyl)-4-(4-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-thioxo- (9CI) (CA INDEX NAME)



RN 452066-49-8 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(4-chlorophenyl)-1,2,3,4-tetrahydro-N,6-dimethyl-N-(phenylmethyl)-2-thioxo- (9CI) (CA INDEX NAME)



L3 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:72060 CAPLUS
DOCUMENT NUMBER: 136:134773
TITLE: Preparation and use of arylpyrimidines as selective melanin concentrating hormone-1 (mch-1) receptor antagonists
INVENTOR(S): Lagu, Bharat; Wetzel, John; Marzabadi, Mohammad R.; Deleon, John E.; Gluchowski, Charles; Noble, Stewart; Nagarathnam, Dhanapalan; Chiu, George
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 310 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002006245	A1	20020124	WO 2001-US21286	20010705

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1299362 A1 20030409 EP 2001-952440 20010705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2004504303 T2 20040212 JP 2002-512149 20010705
PRIORITY APPLN. INFO.: US 2000-610213 A 20000705
WO 2001-US21286 W 20010705

OTHER SOURCE(S): MARPAT 136:134773
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

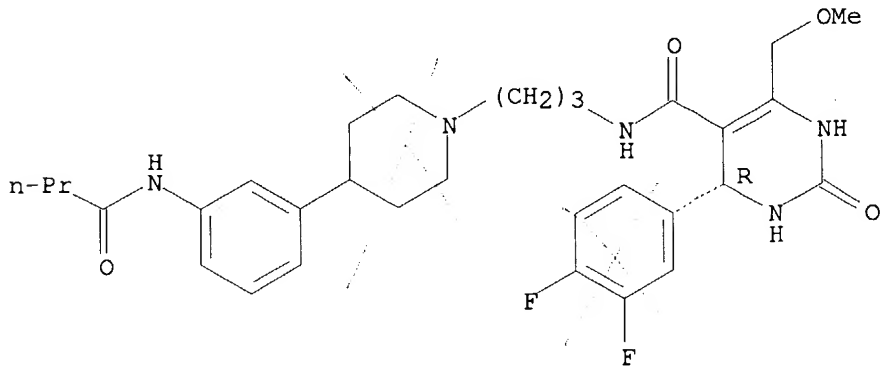
AB Title compds. I-IV [A = (un)substituted Ph, pyridyl, benzothiazolyl, benzoxazolyl, etc.; R1 = H, NO2, CN, (fluoro)alkyl, (cyclo)alkenyl, alkynyl, (fluoro)cycloalkyl, amino, alkoxy, acyl, carboxy, carboxamido; R2 = H, (hydroxy)alkyl, alkoxyalkyl, fluoroalkyl, cycloalkenyl, etc.; R3 = H, (fluoro)alkyl, (cyclo)alkenyl, alkynyl, (fluoro)cycloalkyl; R4 = alkyl-piperidinyl, alkyl-tetrahydropyridinyl, etc. in which the heterocycle is substituted with (hetero)aryl, thioacyl, amido, etc.; X = O, S, NR3; n = 0 - 5] were prepared For instance, (+)-V was prepared by reaction of 5-methoxycarbonyl-4-methoxymethyl-1,2,3,6-tetrahydro-2-oxo-6-(3,4-difluorophenyl)-1-[(4-nitrophenyloxy)carbonyl]pyrimidine (preparation given) and the corresponding propylamine sidechain with base (e.g., iPr2NEt) in CH2Cl2. (+)-V had antagonist potency (Kb) = 0.3 nM and Ki = 0.08 nM for the melanin-concentrating hormone receptor (mch) and Ki > 50,000 nM for two neuropeptide Y receptors and Ki > 50,000 nM three galanin receptors. I-IV are useful in the treatment of, e.g., bulimia nervosa and obesity.

IT **387826-04-2P 387826-05-3P 387826-06-4P**
387826-07-5P 387826-08-6P 387826-09-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug; preparation and use of arylpyrimidines as selective melanin concentrating
hormone-1 (mch-1) receptor antagonists)

RN 387826-04-2 CAPLUS

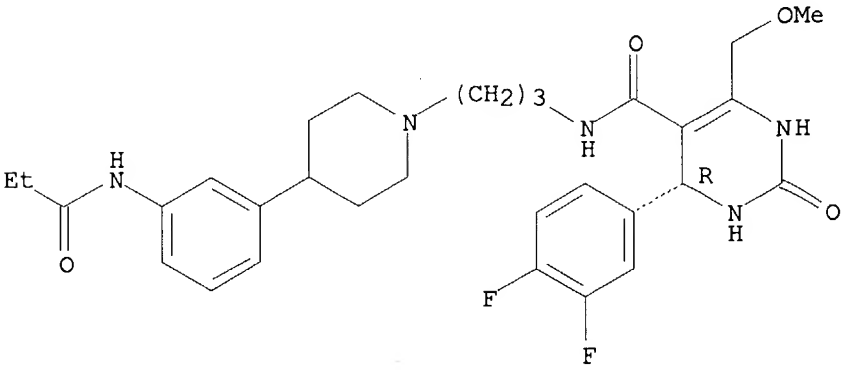
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



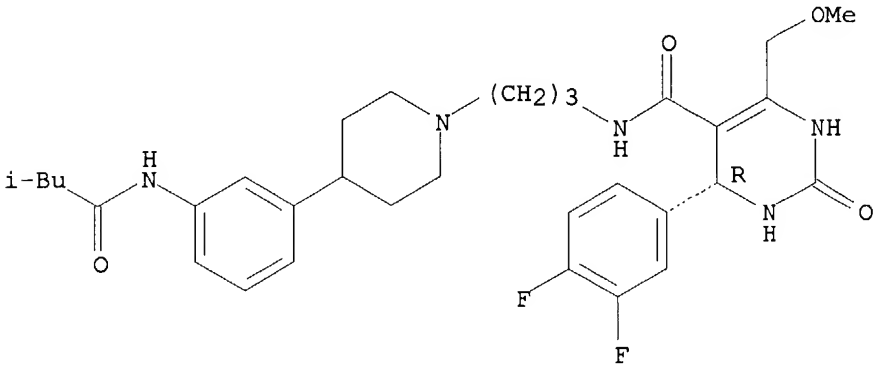
RN 387826-05-3 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 387826-06-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(3-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 387826-07-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(2-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2002:31619 CAPLUS
DOCUMENT NUMBER: 136:96697
TITLE: Human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof
INVENTOR(S): Salon, John A.; Laz, Thomas M.; Nagorny, Raisa; Wilson, Amy E.
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 524 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002002744	A2	20020110	WO 2001-US21350	20010705
WO 2002002744	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1246847	A2	20021009	EP 2001-952456	20010705
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004502423	T2	20040129	JP 2002-507986	20010705
PRIORITY APPLN. INFO.:			US 2000-610635 A	20000705
			WO 2001-US21350 W	20010705

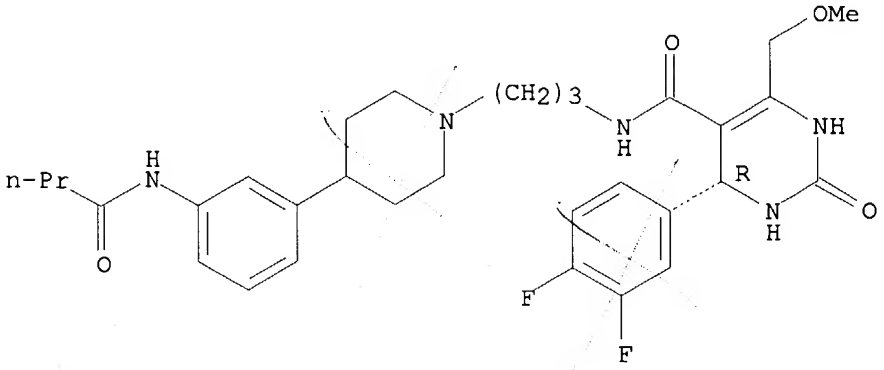
AB This invention provides an isolated nucleic acid encoding a human MCH1 receptor, a purified human MCH1 receptor, vectors comprising isolated nucleic acid encoding a human MCH1 receptor, cells comprising such vectors, antibodies directed to a human MCH1 receptor, nucleic acid probes useful for detecting nucleic acid encoding human MCH1 receptors, antisense oligonucleotides complementary to unique sequence of nucleic acid encoding human MCH1 receptors, transgenic, nonhuman animals which express DNA encoding a normal or mutant human MCH1 receptor, methods of isolating a human MCH1 receptor, methods of treating an abnormality that is linked to the activity of a human MCH1 receptor, as well as methods of determining binding of compds. to mammalian MCH1 receptors. This invention provides a method of modifying the feeding behavior of a subject which comprises administering to the subject an amount of an MCH1 antagonist effective to decrease the body mass of the subject and/or decrease the consumption of food by the subject. This invention further provides a method of treating a subject suffering from depression and/or anxiety which comprises administering to the subject an amount of an MCH1 antagonist effective to treat the subject's depression and/or anxiety.

IT **387826-04-2P 387826-05-3P 387826-06-4P**
387826-07-5P 387826-08-6P 387826-09-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(Uses)
(human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof)

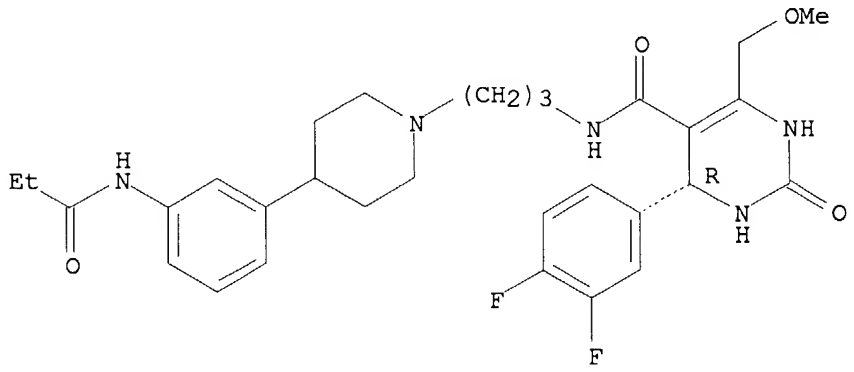
RN 387826-04-2 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 387826-05-3 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-[3-[4-[3-[(1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

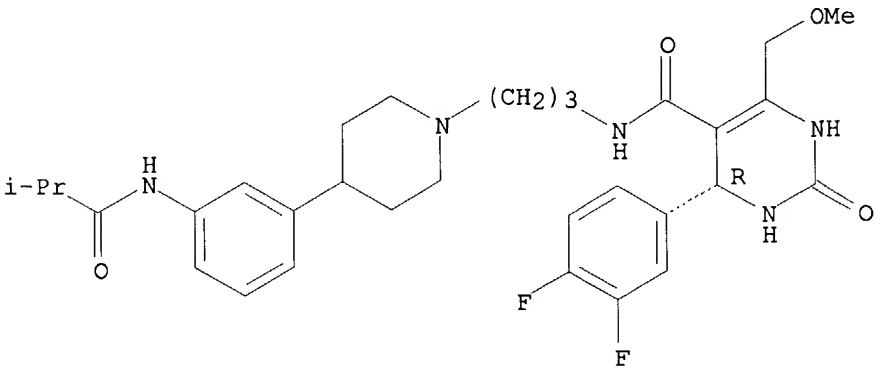


RN 387826-06-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(3-methyl-1-oxobutyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-N-[3-[4-[3-[(2-methyl-1-oxopropyl)amino]phenyl]-1-piperidinyl]propyl]-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

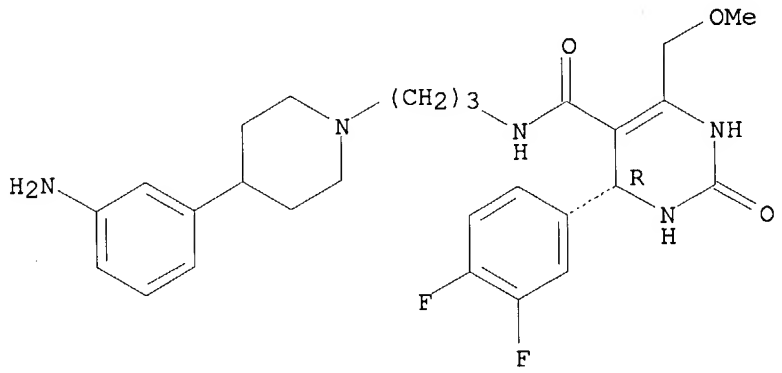


IT **387827-17-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(human melanin concentrating hormone receptor MCH1, its DNA, its synthetic ligands and diagnostic and therapeutic uses thereof)

RN 387827-17-0 CAPLUS

CN 5-Pyrimidinecarboxamide, N-[3-[4-(3-aminophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:560064 CAPLUS

DOCUMENT NUMBER: 135:137519

TITLE: Preparation of 1-(4-arylpiperidinopropyl)carbamoyl-2-piperidone-5-carboxylates and analogs as α1c antagonists

INVENTOR(S): Nagarathnam, Dhanapalan; Chiu, George; Dhar, T. G. Murali; Wong, Wai C.; Marzabadi, Mohammad R.; Gluchowski, Charles; Lagu, Bharat; Miao, Shou Wu

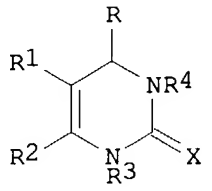
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corp., USA

SOURCE: U.S., 67 pp., Cont.-in-part of U. S. Ser. No. 340,611,

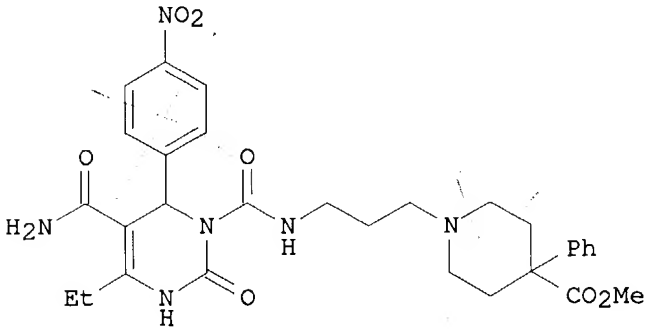
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6268369	B1	20010731	US 1997-836628	19970516
WO 9614846	A1	19960523	WO 1995-US15025	19951116
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6248747	B1	20010619	US 1999-291553	19990414
US 6727257	B1	20040427	US 2000-730458	20001205
PRIORITY APPLN. INFO.:			US 1994-340611 B2	19941116
			WO 1995-US15025 W	19951116
			US 1997-836628 A1	19970516
			US 1997-978682 A3	19971126

OTHER SOURCE(S): MARPAT 135:137519
GI



I



II

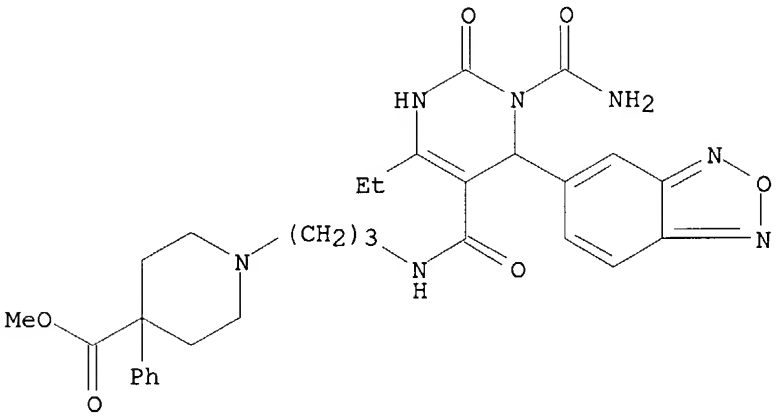
AB Title compds. [e.g., I; R = (un)substituted (hetero)aryl; R1 = H, (fluoro)alkyl, cyano, CO2R3, etc.; R2 = H, alkyl, OR3, etc.; R3 = H, (fluoro)alkyl, etc.; R4 = e.g, (4-arylpiperidinopropyl)carbamoyl; X = O, S, (alkyl)imino] and analogs thereof were prepared Over 60 synthetic examples were provided. Thus 1,6-dihydro-5-(cyanoethoxycarbonyl)-4-ethyl-6-(4-nitrophenyl)-2-methoxypyrimidine (prepared in 3 steps) was treated with 4-nitrophenylchloroformate (acylation at N1) followed by the corresponding substituted piperidine to give the N1 carboxamide intermediate. The

cyanoethoxycarbonyl function was saponified and converted to the 5-carboxamido derivative II. Thus, title compound II had pKi of 9.74 for binding at human α1c receptors in vitro. Treatment of benign prostatic hyperplasia is a claimed use of the invention.

IT **179481-48-2P 179481-49-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1-(4-arylpiperidinopropyl)carbamoyl-2-piperidone-5-carboxylates and analogs as α1c antagonists)

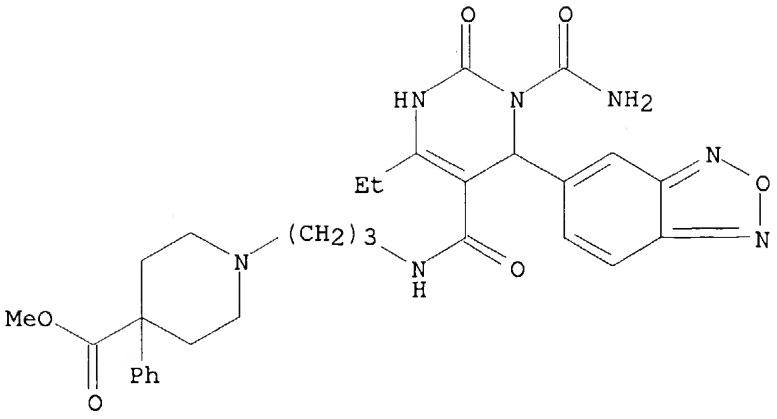
RN 179481-48-2 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



RN 179481-49-3 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, monohydrochloride, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



● HCl

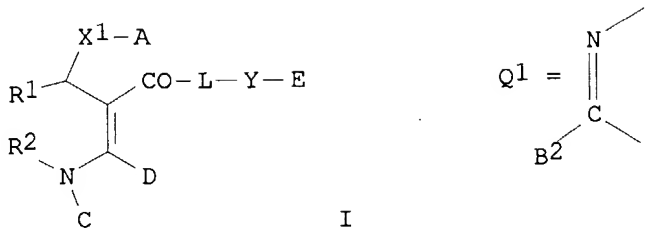
REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:911229 CAPLUS
DOCUMENT NUMBER: 134:56687
TITLE: Preparation of dihydropyrimidine derivatives as N-type calcium channel antagonists
INVENTOR(S): Ohno, Seiji; Okajima, Akiko; Niwa, Seiji; Kito, Morikazu; Takahara, Akira; Ono, Yukitsugu; Kajigaya, Yuki; Takeda, Tomoko; Koganei, Hajime
PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan
SOURCE: PCT Int. Appl., 139 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078730	A1	20001228	WO 2000-JP4107	20000622
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1193259	A1	20020403	EP 2000-940812	20000622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 2002143023	A1	20021003	US 2001-25589	20011226
PRIORITY APPLN. INFO.:			JP 1999-177493 A	19990623
			JP 1999-277717 A	19990930
			WO 2000-JP4107 W	20000622

OTHER SOURCE(S): MARPAT 134:56687

GI



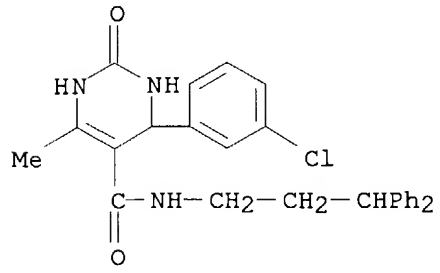
I

AB The title compds. I [R1 and R2 together form Q1, etc.; B2 = amino, etc.; A = 1-naphthyl, etc.; E = H, (un)substituted heteroaryl, etc.; C = H, alkyl, etc.; D = H, alkyl, etc.; L = O (with a proviso), etc.; Y = bond (with a proviso), etc.; X1 = CH2, etc.] are prepared I exhibit selective antagonist activity against the N-type calcium channel. In an in vitro test for N-type calcium channel antagonism, 4-(3-chlorophenyl)-6-[(2-cyclohexylethoxy)methyl]-5-(3,3-diphenylpropylcarbamoyl)-2-phenyl-1,4-dihydropyrimidine showed the pIC50 value of 5.9.

IT **313999-35-8P 313999-36-9P 313999-37-0P**
313999-38-1P 313999-39-2P 313999-40-5P
313999-41-6P 313999-42-7P 313999-43-8P
313999-44-9P 313999-45-0P 313999-46-1P
313999-47-2P 313999-48-3P 313999-49-4P
313999-50-7P 313999-53-0P 313999-56-3P
313999-57-4P 313999-58-5P 313999-59-6P
313999-66-5P 313999-67-6P 313999-73-4P
313999-74-5P 313999-76-7P 313999-77-8P
313999-78-9P 313999-79-0P 313999-80-3P
313999-84-7P 313999-85-8P 313999-86-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dihydropyrimidine derivs. as N-type calcium channel antagonists)

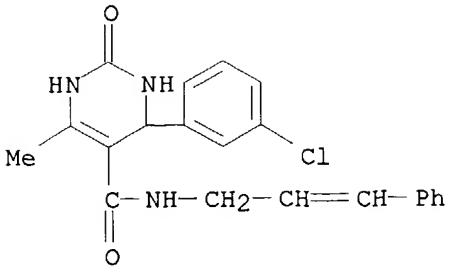
RN 313999-35-8 CAPLUS

CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo- (9CI) (CA INDEX NAME)

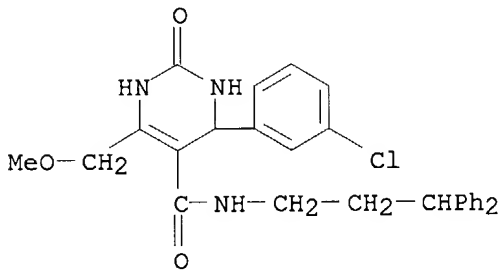


RN 313999-36-9 CAPLUS

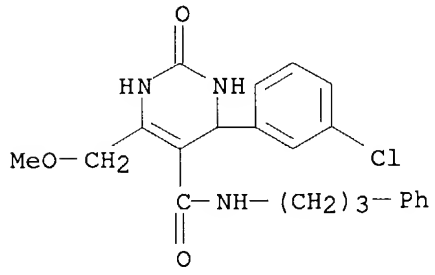
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-(3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



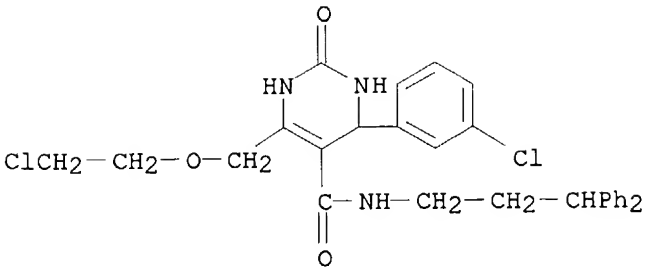
RN 313999-37-0 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo- (9CI) (CA INDEX NAME)



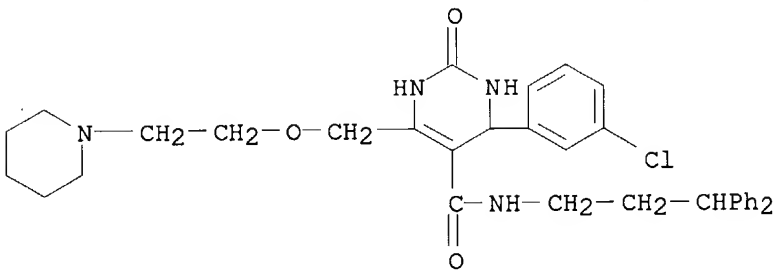
RN 313999-38-1 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



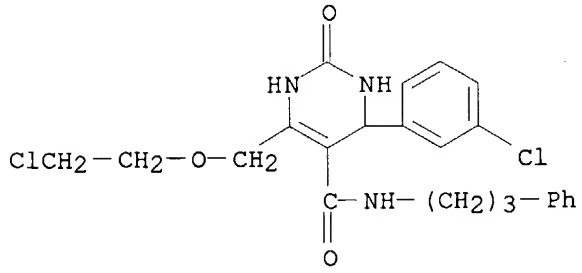
RN 313999-39-2 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-chloroethoxy)methyl]-4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-2-oxo- (9CI) (CA INDEX NAME)



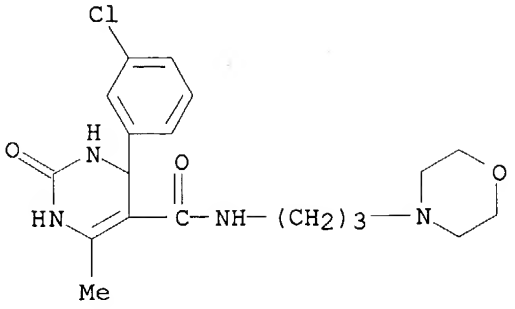
RN 313999-40-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-2-oxo-6-[[2-(1-piperidinyl)ethoxy]methyl]- (9CI) (CA INDEX NAME)



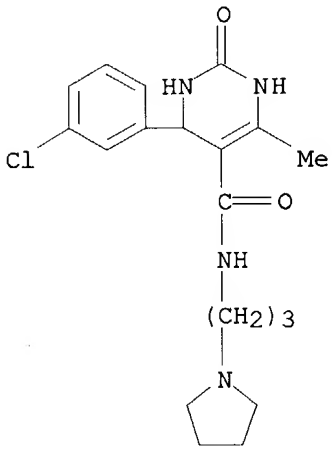
RN 313999-41-6 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-chloroethoxy)methyl]-4-(3-chlorophenyl)-1,2,3,4-tetrahydro-2-oxo-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



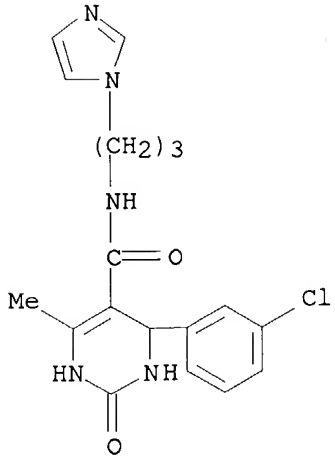
RN 313999-42-7 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-N-[3-(4-morpholinyl)propyl]-2-oxo- (9CI) (CA INDEX NAME)



RN 313999-43-8 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-[3-(1-pyrrolidinyl)propyl]- (9CI) (CA INDEX NAME)

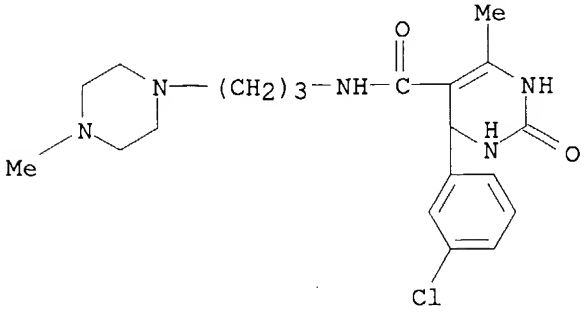


RN 313999-44-9 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-N-[3-(1H-imidazol-1-yl)propyl]-6-methyl-2-oxo- (9CI) (CA INDEX NAME)

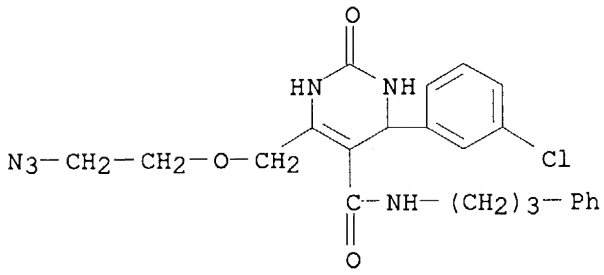


RN 313999-45-0 CAPLUS

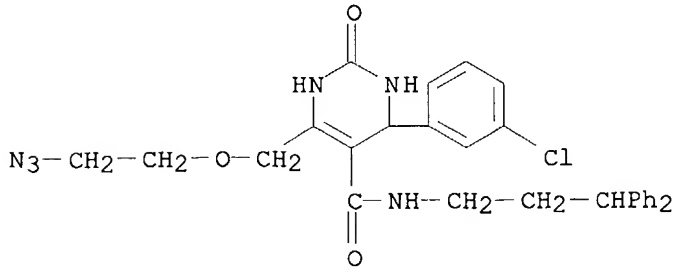
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-N-[3-(4-methyl-1-piperazinyl)propyl]-2-oxo- (9CI) (CA INDEX NAME)



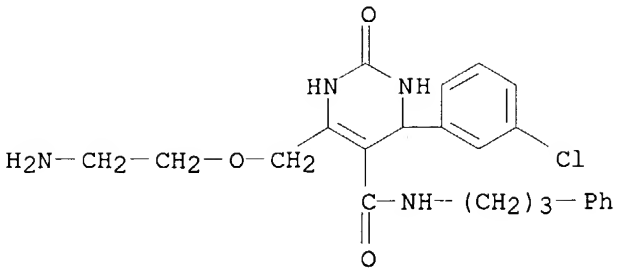
RN 313999-46-1 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-azidoethoxy)methyl]-4-(3-chlorophenyl)-1,2,3,4-tetrahydro-2-oxo-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



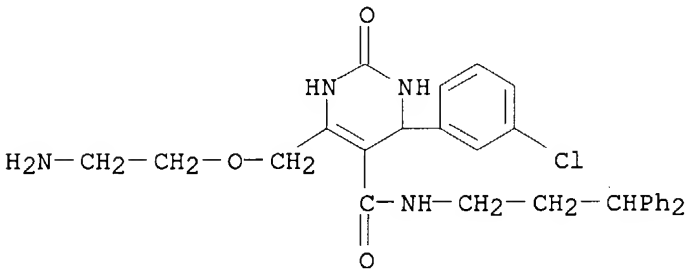
RN 313999-47-2 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-azidoethoxy)methyl]-4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-2-oxo- (9CI) (CA INDEX NAME)



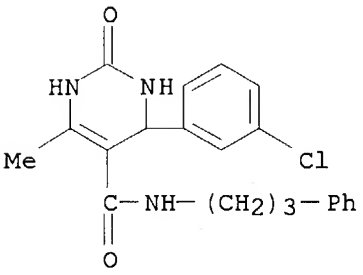
RN 313999-48-3 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-aminoethoxy)methyl]-4-(3-chlorophenyl)-1,2,3,4-tetrahydro-2-oxo-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



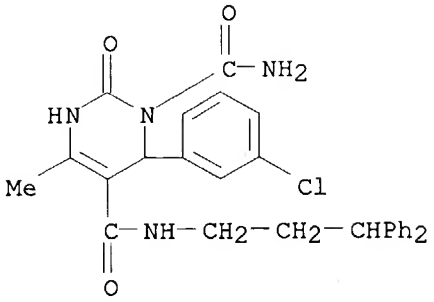
RN 313999-49-4 CAPLUS
CN 5-Pyrimidinecarboxamide, 6-[(2-aminoethoxy)methyl]-4-(3-chlorophenyl)-N-(3,3-diphenylpropyl)-1,2,3,4-tetrahydro-2-oxo- (9CI) (CA INDEX NAME)



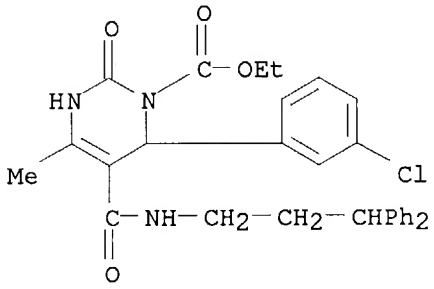
RN 313999-50-7 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-(3-phenylpropyl)- (9CI) (CA INDEX NAME)



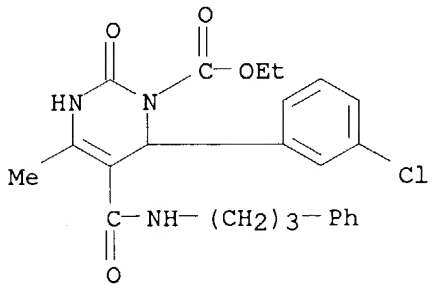
RN 313999-53-0 CAPLUS
CN 1,5(6H)-Pyrimidinedicarboxamide, 6-(3-chlorophenyl)-N5-(3,3-diphenylpropyl)-2,3-dihydro-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



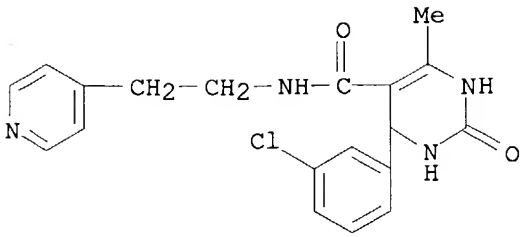
RN 313999-56-3 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3-chlorophenyl)-5-[[(3,3-diphenylpropyl)amino]carbonyl]-3,6-dihydro-4-methyl-2-oxo-, ethyl ester (9CI) (CA INDEX NAME)



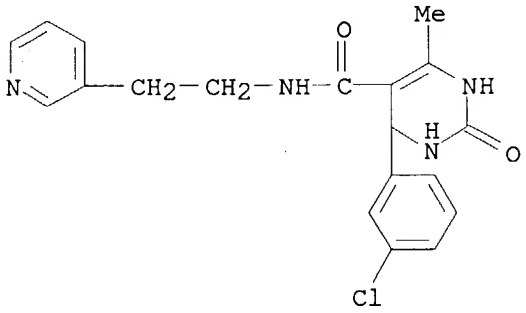
RN 313999-57-4 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[(3-phenylpropyl)amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



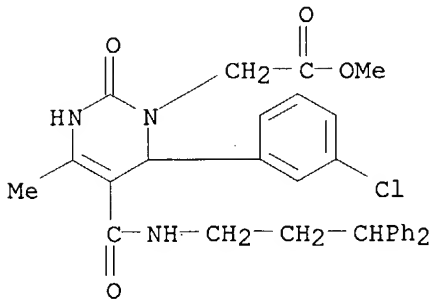
RN 313999-58-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-[2-(4-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



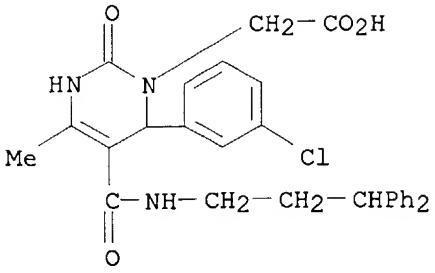
RN 313999-59-6 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-[2-(3-pyridinyl)ethyl]- (9CI) (CA INDEX NAME)



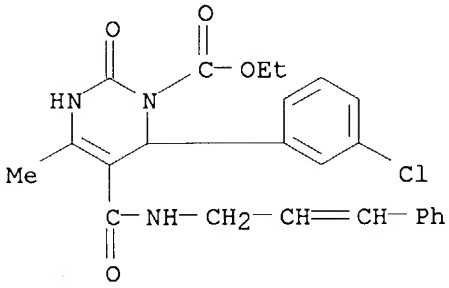
RN 313999-66-5 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-5-[[(3,3-diphenylpropyl)amino]carbonyl]-3,6-dihydro-4-methyl-2-oxo-, methyl ester (9CI) (CA INDEX NAME)



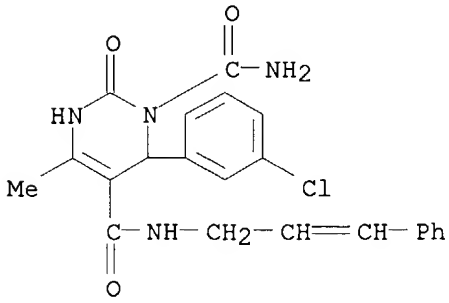
RN 313999-67-6 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-5-[[(3,3-diphenylpropyl)amino]carbonyl]-3,6-dihydro-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



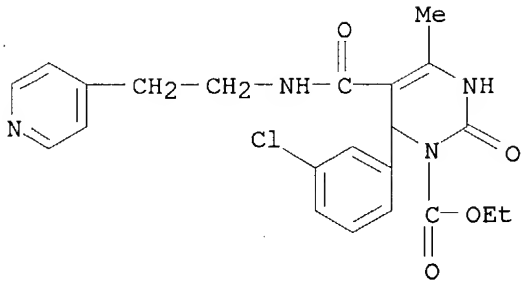
RN 313999-73-4 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[(3-phenyl-2-propenyl)amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



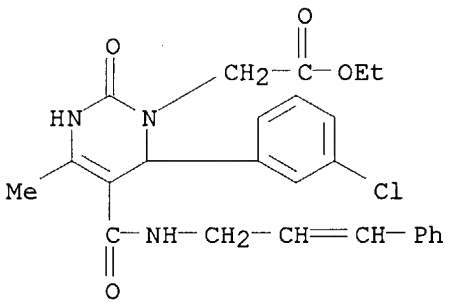
RN 313999-74-5 CAPLUS
CN 1,5(6H)-Pyrimidinedicarboxamide, 6-(3-chlorophenyl)-2,3-dihydro-4-methyl-2-oxo-N5-(3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



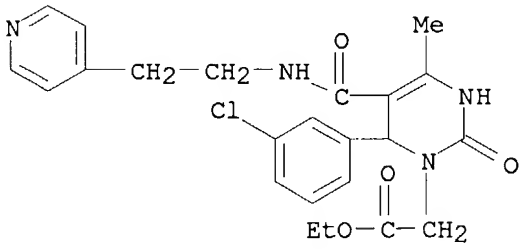
RN 313999-76-7 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[[2-(4-pyridinyl)ethyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



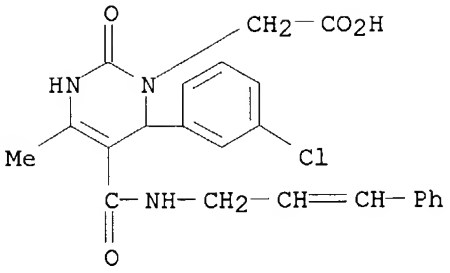
RN 313999-77-8 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[(3-phenyl-2-propenyl)amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



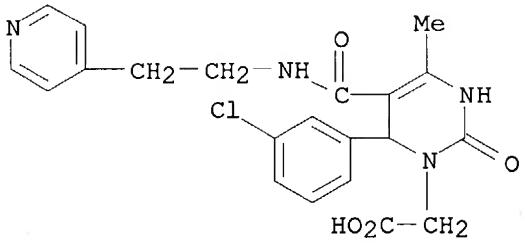
RN 313999-78-9 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[[2-(4-pyridinyl)ethyl]amino]carbonyl]-, ethyl ester (9CI) (CA INDEX NAME)



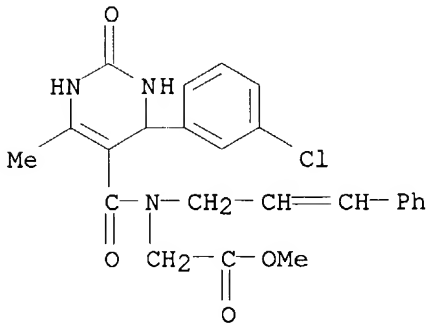
RN 313999-79-0 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[(3-phenyl-2-propenyl)amino]carbonyl]- (9CI) (CA INDEX NAME)



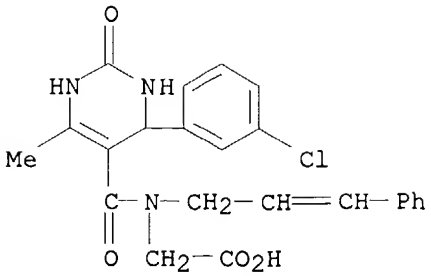
RN 313999-80-3 CAPLUS
CN 1(2H)-Pyrimidineacetic acid, 6-(3-chlorophenyl)-3,6-dihydro-4-methyl-2-oxo-5-[[[2-(4-pyridinyl)ethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)



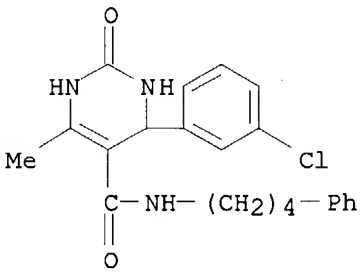
RN 313999-84-7 CAPLUS
CN Glycine, N-[[4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-5-pyrimidinyl]carbonyl]-N-(3-phenyl-2-propenyl)-, methyl ester (9CI) (CA INDEX NAME)



RN 313999-85-8 CAPLUS
CN Glycine, N-[[4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-5-pyrimidinyl]carbonyl]-N-(3-phenyl-2-propenyl)- (9CI) (CA INDEX NAME)



RN 313999-86-9 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3-chlorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-N-(4-phenylbutyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:470758 CAPLUS
DOCUMENT NUMBER: 133:187580
TITLE: In Vitro and in Vivo Evaluation of Dihydropyrimidinone C-5 Amides as Potent and Selective α1A Receptor Antagonists for the Treatment of Benign Prostatic Hyperplasia
AUTHOR(S): Barrow, James C.; Nantermet, Philippe G.; Selnick, Harold G.; Glass, Kristen L.; Rittle, Kenneth E.; Gilbert, Kevin F.; Steele, Thomas G.; Homnick, Carl F.; Freidinger, Roger M.; Ransom, Rick W.; Kling, Paul; Reiss, Duane; Broten, Theodore P.; Schorn, Terry W.; Chang, Raymond S. L.; O'Malley, Stacey S.; Olah, Timothy V.; Ellis, Joan D.; Barrish, Andrea; Kassahun, Kelem; Leppert, Paula; Nagarathnam, Dhanapalan; Forray, Carlos
CORPORATE SOURCE: Departments of Medicinal Chemistry Pharmacology and Drug Metabolism, Merck Research Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Medicinal Chemistry (2000), 43(14), 2703-2718
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB α1 Adrenergic receptors mediate both vascular and lower urinary tract tone, and α1 receptor antagonists such as terazosin are used to treat both hypertension and benign prostatic hyperplasia (BPH).

Recently, three different subtypes of this receptor have been identified, with the α1A receptor being most prevalent in lower urinary tract tissue. This paper explores 4-aryldihydropyrimidinones attached to an aminopropyl-4-arylpiperidine via a C-5 amide as selective α1A receptor subtype antagonists. In receptor binding assays, these types of compds. generally display Ki values for the α1a receptor subtype of <1nM, while being greater than 100-fold selective vs. the α1b and α1d receptor subtypes. Many of these compds. were also evaluated in vivo and found to be more potent than terazosin in both a rat model of prostate tone and a dog model of intra-urethral pressure without significantly affecting blood pressure. While many of the compds. tested displayed poor pharmacokinetics, (4R)-4-(3,4-difluorophenyl)-6-methoxymethyl-2-oxo-1,2,3,4-tetrahydropyrimidine-5-carboxylic acid [3-[4-(4-fluorophenyl)piperidin-1-yl]propyl]amide (I) was found to have adequate bioavailability (>20%) and half-life (>6 h) in both rats and dogs. Due to its selectivity for the α1a over the α1b and α1d receptors, as well as its favorable pharmacokinetic profile, I has the potential to relieve the symptoms of BPH without eliciting effects on the cardiovascular system.

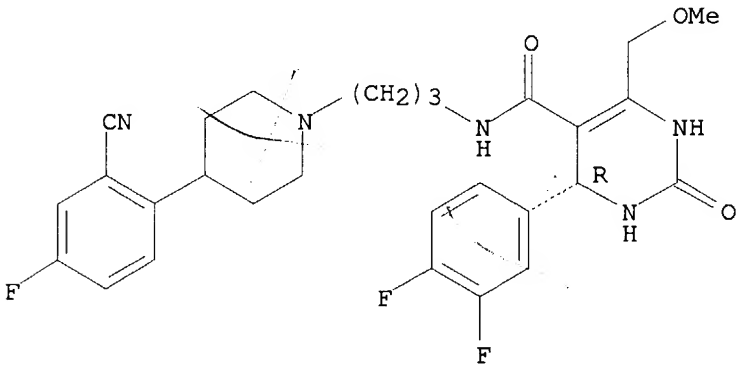
IT **256950-83-1 256950-84-2 256950-85-3**
256950-86-4 256950-89-7 256950-90-0
256951-03-8 256951-17-4 256951-27-6
256951-46-9 256951-47-0 289059-40-1
289059-41-2 289059-42-3 289059-43-4
289059-44-5 289059-45-6 289059-46-7
289059-47-8 289059-48-9 289059-49-0
289059-50-3 289059-51-4 289059-52-5
289482-99-1 289483-00-7 289483-01-8
289483-02-9 289483-03-0 289483-04-1
289483-05-2 289483-06-3 289483-07-4
289483-08-5 289483-09-6

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(in vitro and in vivo evaluation of dihydropyrimidinone C-5 amides as potent and selective α1A receptor antagonists for the treatment of benign prostatic hyperplasia in relation to pharmacokinetics)

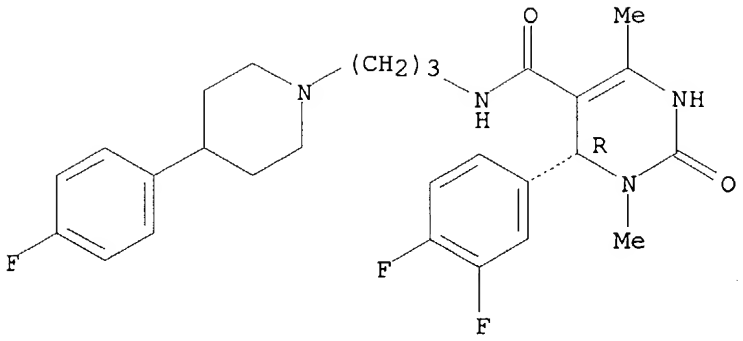
RN 256950-83-1 CAPLUS

CN 5-Pyrimidinecarboxamide, N-[3-[4-(2-cyano-4-fluorophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

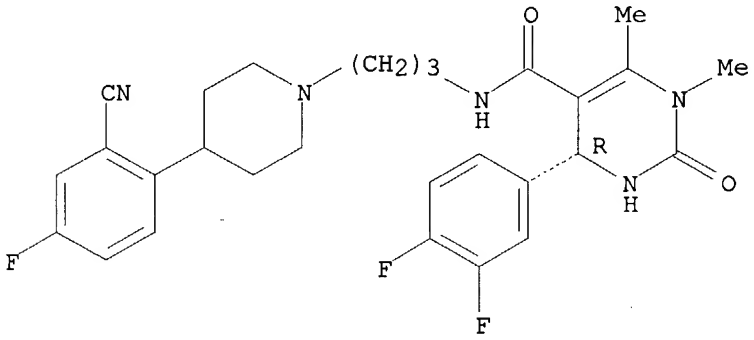


RN 256950-84-2 CAPLUS



RN 289483-09-6 CAPLUS
CN 5-Pyrimidinecarboxamide, N-[3-[4-(2-cyano-4-fluorophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-1,6-dimethyl-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:98550 CAPLUS
DOCUMENT NUMBER: 132:137405
TITLE: 2-Oxo-N-(3-piperidinylpropyl)tetrahydropyrimidine-5-carboxamide derivatives as α1a adrenergic receptor antagonists
INVENTOR(S): Barrow, James C.; Nantermet, Philippe G.; Selnick, Harold G.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 138 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000006565	A1	20000210	WO 1999-US16998	19990727

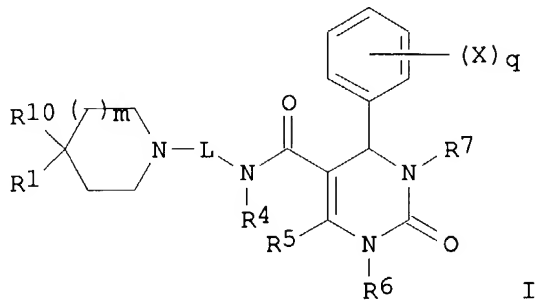
W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR,

TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

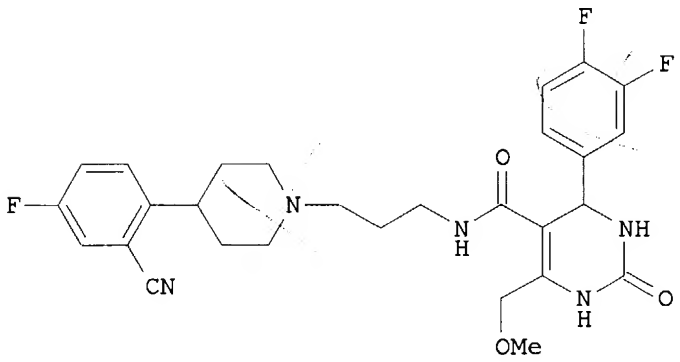
AU 9952348	A1	20000221	AU 1999-52348		19990727
US 6339090	B1	20020115	US 1999-363631		19990729
PRIORITY APPLN. INFO.:			US 1998-94600P	P	19980730
			GB 1998-22364	A	19981013
			WO 1999-US16998	W	19990727

OTHER SOURCE(S): MARPAT 132:137405

GI



I



II

AB Title compds. (I) [wherein R1 = (un)substituted Ph or pyridyl; R2 = (cyclo)alkyl or trifluoromethyl(alkyl); R4 = H, alkyl, or trifluoromethyl(alkyl); R5 = H, (alkoxy)alkyl, or trifluoromethyl(alkyl); R6 = H or alkyl; R7 = H, (alkoxy)alkyl, alkoxycarbonyl, acyl, or trifluoromethyl(alkyl); R8 and R9 = independently (cyclo)alkyl or trifluoromethyl(alkyl); R10 = H, OH, CN, alkyl, alkoxy(alkyl), or trifluoromethyl(alkyl); L = (CH2)n, (CHR2)n, CR8R9(CH2)n-1, (CH2)n-1R8R9, CH2CR8R9CH2, CH2CH2CR8R9CH2, or CH2CR8R9CH2CH2; X = independently halo, CN, or alkyl; m = 0-2; n = 2-4; q = 0-4] were prepared for use in the treatment of benign prostatic hyperplasia. Over fifty target compds. were synthesized and tested for α1a adrenergic receptor binding and selectivity. For example, 4-(R)-(3,4-difluorophenyl)-6-methoxymethyl-2-oxo-1,2,3,4-tetrahydropyrimidine-5-carboxylic acid was amidated with 2-[1-(3-aminopropyl)piperidin-4-yl]-5-fluorobenzonitrile.2HCl (preparation given) in the presence of TEA, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide.HCl, and 1-hydroxybenzotriazole.H2O in DMF to yield (4R)-II. All tested compds. bound to transfected human α1a cell line (ATCC CRL

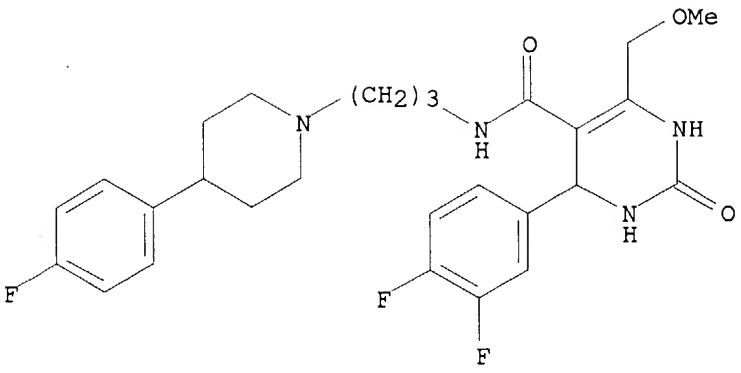
11140) with Ki ≤ 30 nM and were at least 10 fold more selective in binding to α1a receptors vs. binding to α1b or α1d receptors. Thus, these compds. are selective in their ability to relax smooth muscle tissue enriched in the α1a receptor subtype without at the same time inducing hypotension. One such tissue is found surrounding the urethral lining. Therefore, one utility of the invention compds. is to provide acute relief to males suffering from benign prostatic hyperplasia by permitting less hindered urine flow. These compds. may also be used in combination with a human 5α reductase inhibitory compound, such as finasteride, to provide both acute and chronic relief from the effects of benign prostatic hyperplasia.

IT **245046-53-1P 256950-83-1P 256950-84-2P**
256950-85-3P 256950-86-4P 256950-87-5P
256950-88-6P 256950-89-7P 256950-90-0P
256950-91-1P 256950-92-2P 256950-93-3P
256950-94-4P 256950-95-5P 256950-96-6P
256950-97-7P 256950-98-8P 256950-99-9P
256951-00-5P 256951-01-6P 256951-03-8P
256951-05-0P 256951-07-2P 256951-09-4P
256951-11-8P 256951-13-0P 256951-15-2P
256951-16-3P 256951-17-4P 256951-19-6P
256951-22-1P 256951-25-4P 256951-26-5P
256951-27-6P 256951-28-7P 256951-29-8P
256951-30-1P 256951-31-2P 256951-32-3P
256951-33-4P 256951-34-5P 256951-35-6P
256951-36-7P 256951-37-8P 256951-38-9P
256951-39-0P 256951-40-3P 256951-41-4P
256951-42-5P 256951-43-6P 256951-44-7P
256951-45-8P 256951-46-9P 256951-47-0P
256951-48-1P 256951-49-2P 256951-50-5P
256951-51-6P 256951-52-7P 256951-53-8P
256951-54-9P 256951-55-0P 256951-56-1P
256951-57-2P 256951-58-3P 256951-59-4P
256951-60-7P 256951-61-8P 256951-62-9P
256951-63-0P 256951-64-1P 256951-65-2P
256951-66-3P 256951-67-4P 256951-68-5P
256951-69-6P 256951-70-9P 256951-71-0P
256952-08-6P 256952-09-7P 257296-87-0P
257296-88-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(product; preparation of 2-oxo-N-(3-piperidinylpropyl)tetrahydropyrimidine-5-carboxamide derivs. as α1a adrenergic receptor antagonists for the treatment of benign prostatic hyperplasia)

RN 245046-53-1 CAPLUS

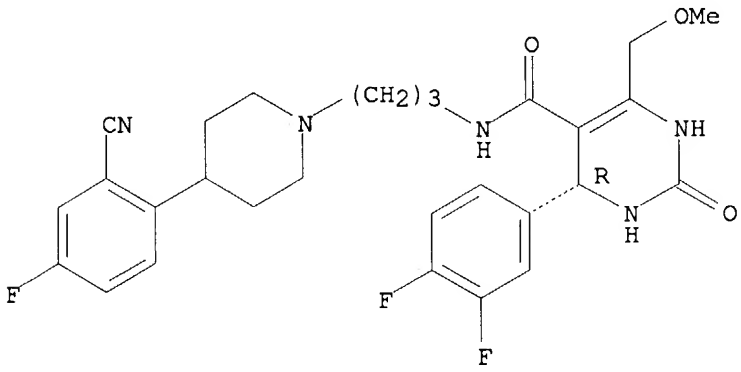
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-N-[3-[4-(4-fluorophenyl)-1-piperidinyl]propyl]-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



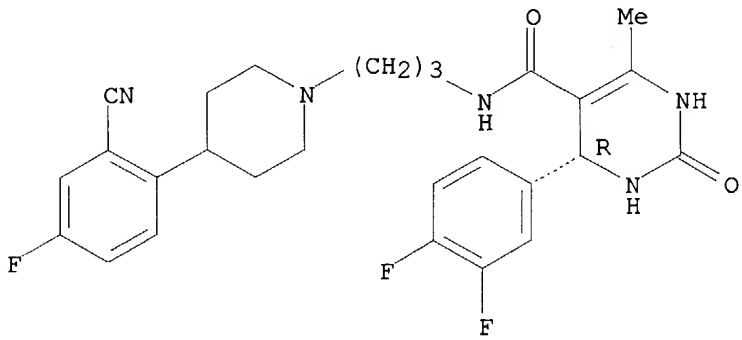
RN 256950-83-1 CAPLUS
CN 5-Pyrimidinecarboxamide, N-[3-[4-(2-cyano-4-fluorophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

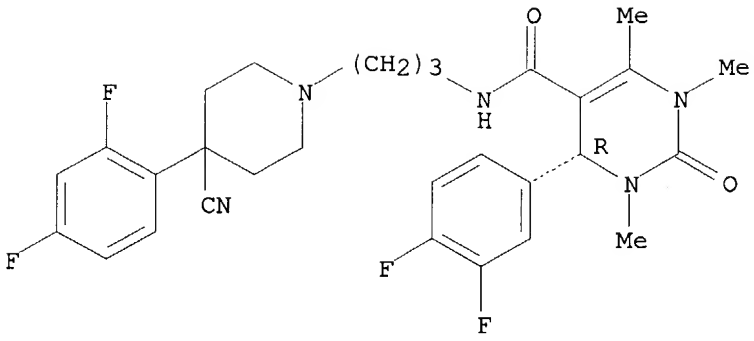


RN 256950-84-2 CAPLUS
CN 5-Pyrimidinecarboxamide, N-[3-[4-(2-cyano-4-fluorophenyl)-1-piperidinyl]propyl]-4-(3,4-difluorophenyl)-1,2,3,4-tetrahydro-6-methyl-2-oxo-, (4R)- (9CI) (CA INDEX NAME)

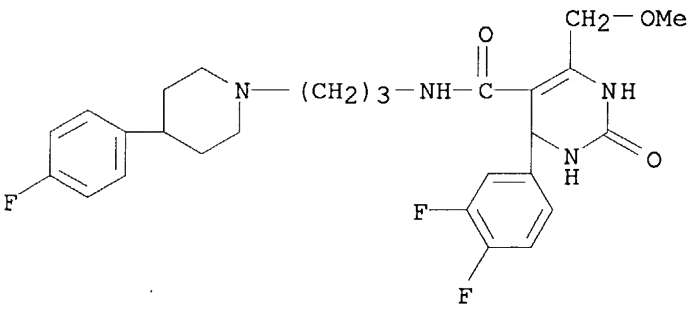
Absolute stereochemistry.



RN 256950-85-3 CAPLUS
CN 5-Pyrimidinecarboxamide, N-[3-[4-(2-cyanophenyl)-1-piperidinyl]propyl]-4-



IT **256952-07-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of 2-oxo-N-(3-piperidinylpropyl)tetrahydropyrimidine-5-carboxamide derivs. as α1a adrenergic receptor antagonists for the treatment of benign prostatic hyperplasia)
RN 256952-07-5 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-N-[3-[4-(4-fluorophenyl)-1-piperidinyl]propyl]-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1999:626075 CAPLUS
DOCUMENT NUMBER: 131:252591
TITLE: Combination of α1-adrenoceptor antagonists and endothelin antagonists for the treatment of benign prostatic hyperplasia
INVENTOR(S): Broten, Theodore P.; Siegl, Peter K. S.; Nichtberger, Steven A.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9948530	A1	19990930	WO 1999-US6014	19990319

W: AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

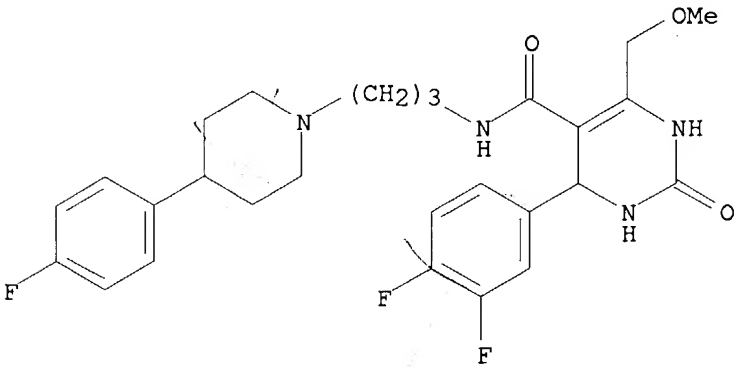
AU 9930112	A1	19991018	AU 1999-30112		19990319
US 6410554	B1	20020625	US 1999-274839		19990323
PRIORITY APPLN. INFO.:			US 1998-79041P	P	19980323
			GB 1998-10895	A	19980520
			WO 1999-US6014	W	19990319

AB A pharmaceutical composition for the treatment of benign prostatic hyperplasia comprises an α1a-adrenoceptor antagonist, a non-selective endothelin antagonist, and optionally a 5α-reductase inhibitor. The combination therapy improves lower urinary tract symptoms including increasing urine flow rate, decreasing residual urine volume and improving overall obstructive and irritative symptoms in patients with benign prostatic hyperplasia or symptomatic prostatism. The efficacy of endothelin antagonists and α1a-adrenoceptor antagonists for inhibition of ET-1 and α1-adrenoceptor-mediated prosthatic urethral contractions was tested in a mongrel dog model. The preparation of the α1a-adrenoceptor antagonist trans-(+)-4-(3,4-difluorophenyl)-5-methyl-2-oxo-oxazolidine-3-carboxylic acid [3-[4-(4-fluorophenyl)-piperidin-1-yl]propyl]amide is presented.

IT **245046-53-1P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of α1-adrenoceptor antagonists for combination therapy with endothelin antagonists for treatment of benign prostatic hyperplasia and prostatitis)

RN 245046-53-1 CAPLUS
CN 5-Pyrimidinecarboxamide, 4-(3,4-difluorophenyl)-N-[3-[4-(4-fluorophenyl)-1-piperidinyl]propyl]-1,2,3,4-tetrahydro-6-(methoxymethyl)-2-oxo-, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:764290 CAPLUS
DOCUMENT NUMBER: 130:25077

TITLE: Preparation of piperidinylpropylaminocarbonyldihydropyrimidones and related compounds as selective adrenergic α1A receptor antagonists.

INVENTOR(S): Wong, Wai C.; Lagu, Bharat; Nagarathnam, Dhanapalan; Marzabadi, Mohammad R.; Gluchowski, Charles

PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, USA

SOURCE: PCT Int. Appl., 314 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

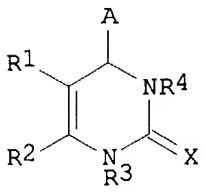
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851311	A2	19981119	WO 1998-US10082	19980515
WO 9851311	A3	19990114		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6245773	B1	20010612	US 1997-858017	19970516
AU 9876872	A1	19981208	AU 1998-76872	19980515
US 2002010186	A1	20020124	US 2001-855597	20010515

PRIORITY APPLN. INFO.:

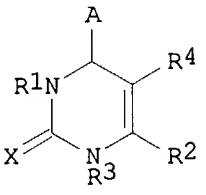
US 1997-858017	A	19970516
US 1996-17801P	P	19960516
WO 1998-US10082	W	19980515

OTHER SOURCE(S): MARPAT 130:25077

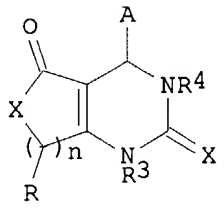
GI



I



II



III

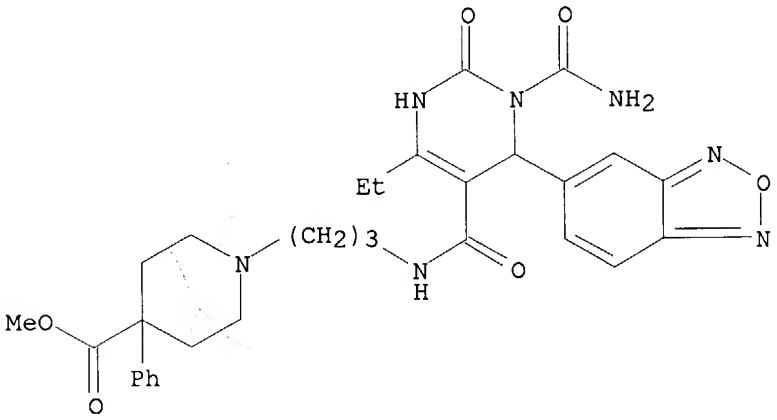
AB Title compds. [I, II, III; A = specified (substituted) (hetero)aryl; X = S, O, NR3; R1 = H, NO2, cyano, alkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl, N(R3)2, OR3, COR3, CO2R3, CON(R3)2; R2 = H, alkyl, hydroxyalkyl, alkoxyalkyl, aminoalkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl, cycloalkylalkyl, cyano, OR3, etc.; R3 = H, alkyl, fluoroalkyl, alkenyl, alkynyl, cycloalkyl, fluorocycloalkyl, cycloalkenyl; R4 = specified substituted heterocyclylpiperidinylalkyl, etc.; n = 0-5], were prepared I are useful for lowering intraocular pressure, inhibiting cholesterol synthesis, relaxing lower urinary tract tissue, treatment of benign prostatic hyperplasia, impotency, cardiac arrhythmia, etc. Thus, (+)-5-carboxamido-4-ethyl-1-[N-[3-(4-methoxycarbonyl-4-phenylpiperidin-1-yl)propyl]]carboxamido-6-(4-nitrophenyl)-2-oxo-1,2,3,6-

tetrahydropyrimidine (preparation given) bound to human α1A receptors with pKi = 9.74.

IT **179481-48-2P 200050-67-5P 200051-26-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of piperidinylpropylaminocarbonyldihydropyrimidones as selective adrenergic α1A receptor antagonists)

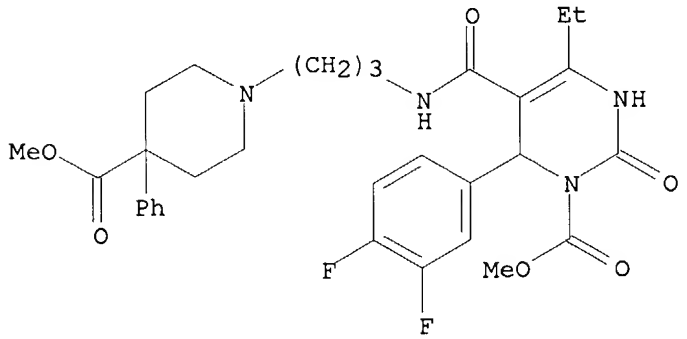
RN 179481-48-2 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



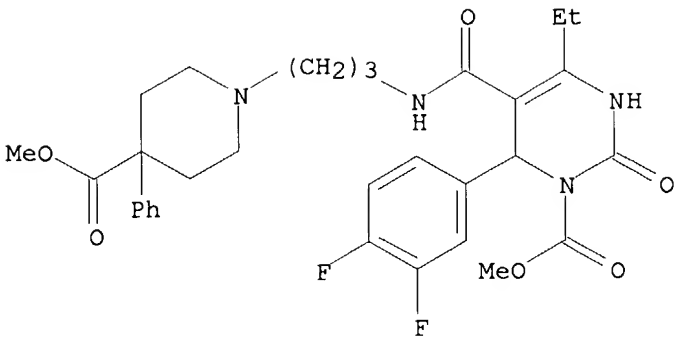
RN 200050-67-5 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3,4-difluorophenyl)-4-ethyl-3,6-dihydro-5-[[[3-[4-(methoxycarbonyl)-4-phenyl-1-piperidinyl]propyl]amino]carbonyl]-2-oxo-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



RN 200051-26-9 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3,4-difluorophenyl)-4-ethyl-3,6-dihydro-5-[[[3-[4-(methoxycarbonyl)-4-phenyl-1-piperidinyl]propyl]amino]carbonyl]-2-oxo-, methyl ester, monohydrochloride, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



● HCl

L3 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:752840 CAPLUS
DOCUMENT NUMBER: 128:61520
TITLE: Preparation of dihydropyrimidine derivatives as selective antagonists for human α1A-adrenergic receptors.
INVENTOR(S): Wong, Wai C.; Lagu, Bharat; Nagarathnam, Dhanapalan; Marzabadi, Mohammad R.; Gluchowski, Charles
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 271 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9742956	A1	19971120	WO 1997-US8335	19970516
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9730082	A1	19971205	AU 1997-30082	19970516
AU 727972	B2	20010104		
JP 2000506904	T2	20000606	JP 1997-541146	19970516
EP 1021185	A1	20000726	EP 1997-924745	19970516
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2002010186	A1	20020124	US 2001-855597	20010515

PRIORITY APPLN. INFO.:			
US 1996-17801P	P	19960516	
US 1996-648768	A	19960516	
US 1997-858017	A1	19970516	
WO 1997-US8335	W	19970516	

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

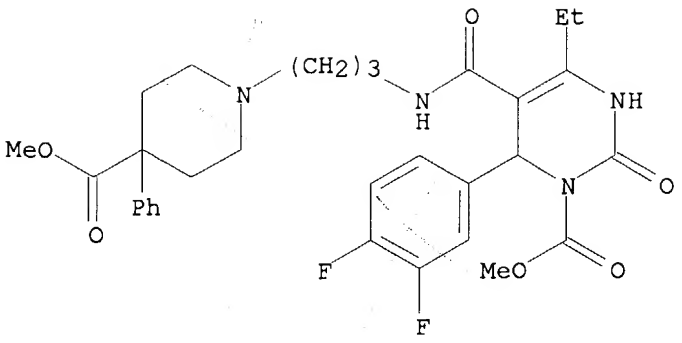
AB The title compds. [I, II, and III; A = (un)substituted Ph, pyridyl, 1H-imidazolyl, or 1-imidazolyl, etc.; X = H, NO2, cyano, linear or branched C1-7 alkyl, mono- or polyfluoroalkyl, linear or branched C2-7 alkenyl or alkynyl, C3-7 cycloalkyl, mono- or polyfluorocycloalkyl, N(R3)2, OR3, (CH2)pOR3, COR3, CO2R3, CO(R3)2; R2 = H, linear or branched C1-7 alkyl, hydroxyalkyl, alkoxyalkyl, aminoalkyl, mono- or polyfluorocycloalkyl, linear or branched C2-7 alkenyl or alkynyl, C3-7 cycloalkyl or mono- or polyfluorocycloalkyl or cycloalkenyl, C3-10 cycloalkyl-C1-10 alkyl, C3-10 cycloalkyl-C1-10 mono- or polyfluorocycloalkyl, cyano, CH2XR3, CH2X(CH2)pNHR3, (CH2)n NHR3, CH2X(CH2)pN(R3)2, CH2X(CH2)pN3, OR3, etc.; p = 1-7; n = 0-5; R3 = H, linear or branched C1-7 alkyl, mono- or polyfluorocycloalkyl, linear or branched C2-7 alkyl or alkynyl, C3-7 cycloalkyl or mono- or polyfluorocycloalkyl or cycloalkenyl; R4 = Q; wherein Z1 = (CH2)o, CO (CH2)oCO, CO(CH2)o; m = 0-3; n = 1-3; V = O, S, CR5R7, C(R7)2, NR7; R = H, F, linear or branched C1-7 alkyl, mono- or polyfluoroalkyl, linear or branched alkyl C2-7 alkenyl or alkynyl, N(R3)2, NO2, etc.; R5, R7 = H, F, Cl, Br, iodo, COR3, CO2R3, CON(R3)2, cyano, NO2, N(R3)2, OR3, SR3, (CH2)pOR3, (CH2)pSR3, etc.; R6 = H, linear or branched C1-7 alkyl, hydroxyalkyl, aminoalkyl, alkoxyalkyl, mono- or polyfluoroalkyl, C3-7 cycloalkyl]. This invention is also related to uses of these compds. for lowering intraocular pressure, inhibiting cholesterol synthesis, relaxing lower urinary tract tissue, the treatment of benign prostatic hyperplasia, impotence, cardiac arrhythmia and for the treatment of any disease where the antagonism of the α1A receptor may be useful. The invention further provides a pharmaceutical composition comprising a therapeutically effective amount of the above-defined compds. and a pharmaceutically acceptable carrier. Thus, a mixture of 1-(5-chloropentyl)-6-(3,4-difluorophenyl)-1,6-dihydro-2,4-dimethyl-5-methoxycarbonylpyrimidine (preparation given), 4-methoxycarbonyl-4-phenylpiperidine, K2CO3, and NaI, and 1,4-dioxane was refluxed overnight to give IV. IV in vitro showed binding affinities at cloned human α1d, α1b, and α1a receptors with pKi values of 6.17, 6.32, and 8.99, resp.

IT **200050-67-5P 200050-70-0P 200051-26-9P 200051-29-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of dihydropyrimidine derivs. as selective antagonists for human α1A-adrenergic receptors for disease treatment)

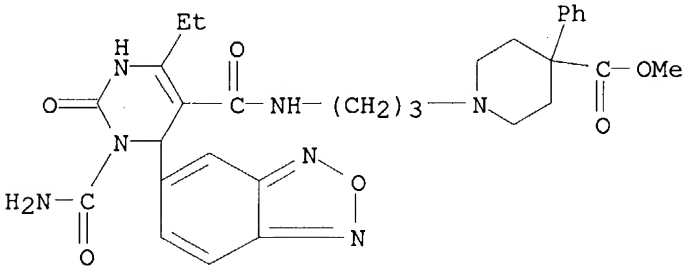
RN 200050-67-5 CAPLUS

CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3,4-difluorophenyl)-4-ethyl-3,6-dihydro-5-[[[3-[4-(methoxycarbonyl)-4-phenyl-1-piperidinyl]propyl]amino]carbonyl]-2-oxo-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).

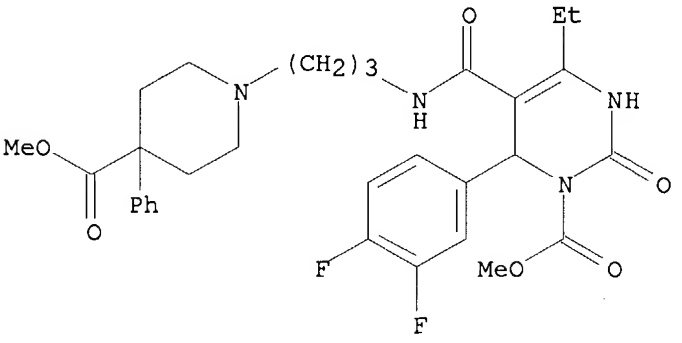


RN 200050-70-0 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester (9CI) (CA INDEX NAME)



RN 200051-26-9 CAPLUS
CN 1(2H)-Pyrimidinecarboxylic acid, 6-(3,4-difluorophenyl)-4-ethyl-3,6-dihydro-5-[[[3-[4-(methoxycarbonyl)-4-phenyl-1-piperidinyl]propyl]amino]carbonyl]-2-oxo-, methyl ester, monohydrochloride, (-)- (9CI) (CA INDEX NAME)

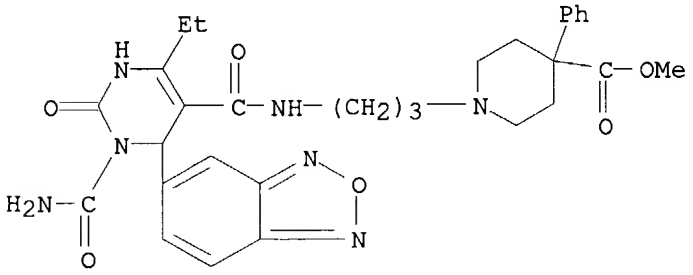
Rotation (-).



● HCl

RN 200051-29-2 CAPLUS

CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L3 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2004 ACS on STN

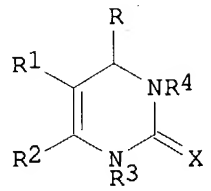
ACCESSION NUMBER: 1996:473181 CAPLUS
DOCUMENT NUMBER: 125:142759
TITLE: Preparation of 1-(4-arylpiperidinopropyl)carbamoyl-2-piperidone-5-carboxylates and analogs as α1c antagonists
INVENTOR(S): Nagarathnam, Dhanapalan; Chiu, George; Dhar, T. G. Murali; Wong, Wai C.; Marzabadi, Mohammad R.; Gluchowski, Charles; Lagu, Bharat; Miao, Shou Wu
PATENT ASSIGNEE(S): Synaptic Pharmaceutical Corporation, USA
SOURCE: PCT Int. Appl., 229 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9614846	A1	19960523	WO 1995-US15025	19951116
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2205384	AA	19960523	CA 1995-2205384	19951116
AU 9642398	A1	19960606	AU 1996-42398	19951116
AU 714640	B2	20000106		
EP 790826	A1	19970827	EP 1995-940748	19951116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1173132	A	19980211	CN 1995-197348	19951116
JP 10510247	T2	19981006	JP 1996-516354	19951116
JP 3200070	B2	20010820		
BR 9509700	A	19981103	BR 1995-9700	19951116
HU 77941	A2	19981228	HU 1998-1222	19951116

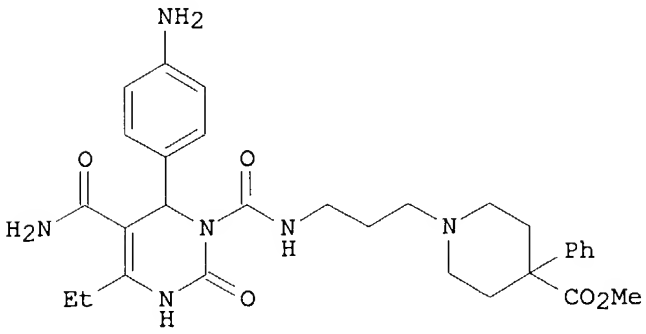
CA 2237774		AA	19970522	CA 1996-2237774	19961115
WO 9717969		A1	19970522	WO 1996-US18573	19961115
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9710558		A1	19970605	AU 1997-10558	19961115
AU 714287		B2	19991223		
ZA 9609612		A	19970721	ZA 1996-9612	19961115
EP 866708		A1	19980930	EP 1996-941406	19961115
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000500470		T2	20000118	JP 1997-519157	19961115
NO 9702236		A	19970701	NO 1997-2236	19970515
FI 9702087		A	19970714	FI 1997-2087	19970515
US 6268369		B1	20010731	US 1997-836628	19970516
US 5942517		A	19990824	US 1997-978682	19971126
US 6228861		B1	20010508	US 1998-68782	19981110
US 6248747		B1	20010619	US 1999-291553	19990414
US 6727257		B1	20040427	US 2000-730458	20001205
PRIORITY APPLN. INFO.:				US 1994-340611	A 19941116
				WO 1995-US15025	W 19951116
				US 1996-648770	A 19960516
				WO 1996-US18573	W 19961115
				US 1997-836628	A1 19970516
				US 1997-978682	A3 19971126

OTHER SOURCE(S): MARPAT 125:142759

GI



I



II

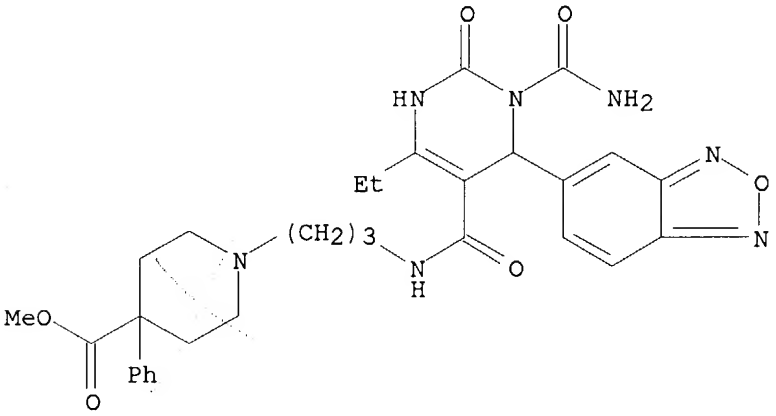
AB Title compds. [e.g., I; R = (un)substituted (hetero)aryl; R1 = H, (fluoro)alkyl, cyano, ,CO2R3, etc.; R2 = H, alkyl, OR3, etc.; R3 = H,

(fluoro)alkyl, etc.; R4 = e.g, (4-arylpiperidinopropyl)carbamoyl; X = O, S, (alkyl)imino] were prepared Thus, title compound II had pKi of 9.74 for binding at human α1c receptors in vitro.

IT **179481-48-2P 179481-49-3P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1-(4-arylpiperidinopropyl)carbamoyl-2-piperidone-5-carboxylates and analogs as α1c antagonists)

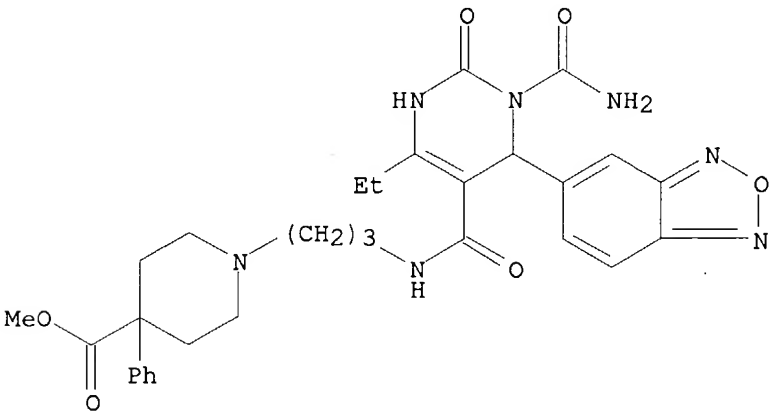
RN 179481-48-2 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



RN 179481-49-3 CAPLUS
CN 4-Piperidinecarboxylic acid, 1-[3-[[[1-(aminocarbonyl)-6-(2,1,3-benzoxadiazol-5-yl)-4-ethyl-1,2,3,6-tetrahydro-2-oxo-5-pyrimidinyl]carbonyl]amino]propyl]-4-phenyl-, methyl ester, monohydrochloride, (-)- (9CI) (CA INDEX NAME)

Rotation (-).



● HCl